

=> d his full

FILE 'REGISTRY' ENTERED AT 09:52:13 ON 08 SEP 2005
L1 1 SEA ABB=ON PLU=ON 3081-61-6
D SCA

FILE 'REGISTRY' ENTERED AT 09:55:57 ON 08 SEP 2005
L2 STR 3081-61-6
L3 0 SEA FAM SAM L2
D L2
L4 6 SEA FAM FUL L2
L5 2 SEA ABB=ON PLU=ON L4 AND CL/ELS
D RN L5 1
L6 STR 175696-81-8
D L6
D SCA L5

FILE 'REGISTRY' ENTERED AT 10:03:16 ON 08 SEP 2005
L7 STR 175696-81-8
L8 0 SEA FAM SAM L7
SAVE TEMP L4 SPI427FAM/A

FILE 'CAPLUS' ENTERED AT 10:06:04 ON 08 SEP 2005
L9 482 SEA ABB=ON PLU=ON L4
E STRESS/CT
L10 248985 SEA ABB=ON PLU=ON STRESS/OBI
E ANXIETY/CT
E E3=ALL
E ANXIETY/CT
E E3+ALL
E E7+ALL
E STRESS/CT
E E26+ALL
L11 259444 SEA ABB=ON PLU=ON ANXIET?/OBI OR STRESS?/OBI OR ANXIOTLYTI?/O
BI OR ANTIANXIET?/OBI
L12 8185 SEA ABB=ON PLU=ON ANXIOLYTI?/OBI
L13 263562 SEA ABB=ON PLU=ON L11 OR L12
L14 18 SEA ABB=ON PLU=ON L9 AND L13
L15 371 SEA ABB=ON PLU=ON ANTISTRESS?/OBI
L16 263622 SEA ABB=ON PLU=ON L13 OR L15
L17 18 SEA ABB=ON PLU=ON L16 AND L9

FILE 'REGISTRY' ENTERED AT 10:28:05 ON 08 SEP 2005
D L1
L18 QUE ABB=ON PLU=ON (GLUTAMINE (2A) (N-ETHYL OR ETHYLAMINO OR
ETHYL AMINO)) OR THEANIN# OR SUNTHEANIN# OR NSC21308 OR NSC
21308

FILE 'WPIX' ENTERED AT 10:32:26 ON 08 SEP 2005
L19 QUE ABB=ON PLU=ON (GLUTAMINE (2A) (N(W)ETHYL OR ETHYLAMINO
OR ETHYL AMINO)) OR THEANIN# OR SUNTHEANIN# OR NSC21308 OR NSC
21308

FILE 'WPIDS' ENTERED AT 10:35:09 ON 08 SEP 2005
L20 124 SEA ABB=ON PLU=ON (GLUTAMINE (2A) (N(W)ETHYL OR ETHYLAMINO
OR ETHYL AMINO)) OR THEANIN# OR SUNTHEANIN# OR NSC21308 OR NSC

21308
L21 160569 SEA ABB=ON PLU=ON ANXIET?/OBI OR STRESS?/OBI OR ANXIOTLYTI?/O
BI OR ANTIANXIET?/OBI
L22 2380 SEA ABB=ON PLU=ON ANXIOLYTI? OR ANTISTRESS?
L23 161374 SEA ABB=ON PLU=ON L21 OR L22

FILE 'MEDLINE' ENTERED AT 10:42:09 ON 08 SEP 2005

E THEANINE/CT
E STRESS/CT
E E3+ALL
E ANXIETY/CT
E E3+ALL

FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 10:46:22 ON 08 SEP 2005

L25 166 SEA ABB=ON PLU=ON L4
L26 275 SEA ABB=ON PLU=ON L19
L27 275 SEA ABB=ON PLU=ON L25 OR L26
L28 1019111 SEA ABB=ON PLU=ON L16
L29 18 SEA ABB=ON PLU=ON L27 AND L28

FILE 'CAPLUS, MEDLINE, EMBASE, BIOSIS, WPIDS' ENTERED AT 10:50:38 ON 08 SEP 2005

L30 33 DUP REM L17 L29 L24 (16 DUPLICATES REMOVED)
ANSWERS '1-18' FROM FILE CAPLUS
ANSWERS '19-20' FROM FILE MEDLINE
ANSWERS '21-23' FROM FILE EMBASE
ANSWERS '24-27' FROM FILE BIOSIS
ANSWERS '28-33' FROM FILE WPIDS

FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, WPIDS' ENTERED AT 11:03:28 ON 08 SEP 2005

E WEISS M/AU
L31 6395 SEA ABB=ON PLU=ON ("WEISS M"/AU OR "WEISS M A"/AU OR "WEISS
M B"/AU OR "WEISS M C"/AU OR "WEISS M D"/AU OR "WEISS M E"/AU
OR "WEISS M F"/AU OR "WEISS M G"/AU OR "WEISS M H"/AU OR
"WEISS M I"/AU OR "WEISS M J"/AU OR "WEISS M J S"/AU OR "WEISS
M JR"/AU OR "WEISS M K"/AU OR "WEISS M L"/AU OR "WEISS M M"/AU
OR "WEISS M M JR"/AU OR "WEISS M M SR"/AU OR "WEISS M N"/AU OR
"WEISS M O"/AU OR "WEISS M P"/AU OR "WEISS M R"/AU OR "WEISS M
S"/AU OR "WEISS M T"/AU OR "WEISS M TRACY"/AU OR "WEISS M
W"/AU OR "WEISS M Z"/AU)
E WEISS MICHAEL/AU
L32 639 SEA ABB=ON PLU=ON ("WEISS MICHAEL"/AU OR "WEISS MICHAEL
A"/AU OR "WEISS MICHAEL AARON"/AU OR "WEISS MICHAEL D"/AU OR
"WEISS MICHAEL E"/AU OR "WEISS MICHAEL EDGAR"/AU OR "WEISS
MICHAEL G"/AU OR "WEISS MICHAEL H"/AU OR "WEISS MICHAEL J"/AU
OR "WEISS MICHAEL J SALOMON"/AU OR "WEISS MICHAEL JAY"/AU OR
"WEISS MICHAEL JOSEPH"/AU OR "WEISS MICHAEL L"/AU OR "WEISS
MICHAEL S"/AU OR "WEISS MICHAELA"/AU OR "WEISS MICHEAL A"/AU)
E GEISS K/AU
L33 40 SEA ABB=ON PLU=ON ("GEISS K"/AU OR "GEISS K R"/AU OR "GEISS
KURT REINER"/AU)
E JUNEJA L/AU
L34 244 SEA ABB=ON PLU=ON ("JUNEJA L"/AU OR "JUNEJA L R"/AU OR
"JUNEJA LECH RAJ"/AU OR "JUNEJA LEK R"/AU OR "JUNEJA LEKA
RAJ"/AU OR "JUNEJA LEKH"/AU OR "JUNEJA LEKH R"/AU OR "JUNEJA
LEKH RAI"/AU OR "JUNEJA LEKH RAJ"/AU OR "JUNEJA LEKH RAJA"/AU)
E YAMAZAKI N/AU

L35 1519 SEA ABB=ON PLU=ON ("YAMAZAKI N"/AU OR "YAMAZAKI NAGAHIRO"/AU)
 E OZEKI M/AU
 L36 662 SEA ABB=ON PLU=ON ("OZEKI M"/AU OR "OZEKI MAKOTO"/AU)
 L37 9463 SEA ABB=ON PLU=ON (L31 OR L32 OR L33 OR L34 OR L35 OR L36)
 L38 839 SEA ABB=ON PLU=ON L19
 L39 839 SEA ABB=ON PLU=ON L19
 L40 1444107 SEA ABB=ON PLU=ON L16
 L41 41 SEA ABB=ON PLU=ON L37 AND L39
 L42 231 SEA ABB=ON PLU=ON L37 AND L40
 L43 28 DUP REM L41 (13 DUPLICATES REMOVED)
 ANSWERS '1-21' FROM FILE HCAPLUS
 ANSWERS '22-26' FROM FILE BIOSIS
 ANSWERS '27-28' FROM FILE WPIDS
 L44 162 DUP REM L42 (69 DUPLICATES REMOVED)
 ANSWERS '1-19' FROM FILE HCAPLUS
 ANSWERS '20-90' FROM FILE MEDLINE
 ANSWERS '91-133' FROM FILE EMBASE
 ANSWERS '134-151' FROM FILE BIOSIS
 ANSWERS '152-162' FROM FILE WPIDS
 L45 26 SEA ABB=ON PLU=ON L43 NOT L30

=> file registry

FILE 'REGISTRY' ENTERED AT 11:34:39 ON 08 SEP 2005

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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 7 SEP 2005 HIGHEST RN 862646-13-7

DICTIONARY FILE UPDATES: 7 SEP 2005 HIGHEST RN 862646-13-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d que stat L4

L2 STR

/ Structure 2 in file .gra /

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L4 6 SEA FILE=REGISTRY FAM FUL L2

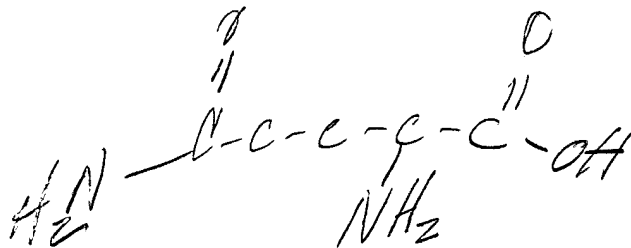
100.0% PROCESSED 8759 ITERATIONS

6 ANSWERS

SEARCH TIME: 00.00.01

=> d ide can L4 1

L4 ANSWER 1 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 175696-81-8 REGISTRY
 ED Entered STN: 30 Apr 1996
 CN L-Glutamine, N-ethyl-, monohydrochloride (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN L-Theanine monohydrochloride
 CN N-Ethyl-L-glutamine hydrochloride
 CN N-Ethyl-L-glutamine monohydrochloride
 CN Theanine hydrochloride
 FS STEREOSEARCH
 MF C7 H14 N2 O3 . Cl H
 SR CA
 LC STN Files: CA, CAPLUS, CASREACT
 CRN (3081-61-6)



Absolute stereochemistry. Rotation (+).

/ Structure 3 in file .gra /

2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:108292

REFERENCE 2: 124:276880

514/563

=> d ide can L4 2-6

L4 ANSWER 2 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 92503-19-0 REGISTRY
 ED Entered STN: 17 Dec 1984
 CN Glutamine, N-ethyl-, hydrochloride (7CI) (CA INDEX NAME)
 MF C7 H14 N2 O3 . Cl H
 LC STN Files: CA, CAOLD, CAPLUS
 CRN (34271-54-0)

/ Structure 4 in file .gra /

2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 59:15993

REFERENCE 2: 59:15992

L4 ANSWER 3 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 70033-09-9 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN L-Glutamine, N-(ethyl-14C2)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C7 H14 N2 O3
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

/ Structure 5 in file .gra /

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 90:164807

L4 ANSWER 4 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
RN 34271-54-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Glutamine, N-ethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN DL-Glutamine, N-ethyl-
CN Glutamine, N-ethyl-, DL- (8CI)
OTHER NAMES:
CN DL-Theanine
DR 17010-37-6
MF C7 H14 N2 O3
CI COM
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, TOXCENTER
(*File contains numerically searchable property data)

/ Structure 6 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

35 REFERENCES IN FILE CA (1907 TO DATE)
35 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:70948

REFERENCE 2: 141:384316

REFERENCE 3: 140:296553

REFERENCE 4: 139:369713

REFERENCE 5: 139:369671

REFERENCE 6: 133:73078

REFERENCE 7: 129:197343

REFERENCE 8: 95:7745

REFERENCE 9: 75:139188

REFERENCE 10: 65:109804

L4 ANSWER 5 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
RN 5822-62-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN D-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glutamine, N-ethyl-, D- (8CI)
OTHER NAMES:
CN D-Theanine
FS STEREOSEARCH

MF C7 H14 N2 O3

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry.

/ Structure 7 in file .gra /

****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

11 REFERENCES IN FILE CA (1907 TO DATE)
11 REFERENCES IN FILE CAPLUS (1907 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 143:70948
REFERENCE 2: 142:296792
REFERENCE 3: 141:384316
REFERENCE 4: 141:22247
REFERENCE 5: 140:296553
REFERENCE 6: 138:83397
REFERENCE 7: 129:197343
REFERENCE 8: 126:156614
REFERENCE 9: 65:66789
REFERENCE 10: 65:49929

L4 ANSWER 6 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN

RN 3081-61-6 REGISTRY

ED Entered STN: 16 Nov 1984

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Glutamine, N-ethyl-, L- (6CI, 7CI, 8CI)

OTHER NAMES:

CN L-Theanine

CN NSC 21308

CN Suntheanine

CN Theanin

CN Theanine

FS STEREOSEARCH

MF C7 H14 N2 O3

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST,
CSCHEM, IPA, MEDLINE, NAPRALERT, PROMT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry. Rotation (+).

/ Structure 8 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

445 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
451 REFERENCES IN FILE CAPLUS (1907 TO DATE)
24 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 143:186673
REFERENCE 2: 143:186662
REFERENCE 3: 143:171751
REFERENCE 4: 143:158876
REFERENCE 5: 143:151938
REFERENCE 6: 143:146715
REFERENCE 7: 143:133691
REFERENCE 8: 143:132180
REFERENCE 9: 143:129541
REFERENCE 10: 143:91079

=> file caplus medline embase biosis wpids
FILE 'CAPLUS' ENTERED AT 11:35:50 ON 08 SEP 2005
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FILE 'MEDLINE' ENTERED AT 11:35:50 ON 08 SEP 2005

FILE 'EMBASE' ENTERED AT 11:35:50 ON 08 SEP 2005
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=> d que L30
L2 STR
/ Structure 9 in file .gra /

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L4 6 SEA FILE=REGISTRY FAM FUL L2
 L9 482 SEA FILE=CAPLUS ABB=ON PLU=ON L4
 L11 259444 SEA FILE=CAPLUS ABB=ON PLU=ON ANXIET?/OBI OR STRESS?/OBI OR
 ANXIOTLYTI?/OBI OR ANTIANXIET?/OBI
 L12 8185 SEA FILE=CAPLUS ABB=ON PLU=ON ANXIOLYTI?/OBI
 L13 263562 SEA FILE=CAPLUS ABB=ON PLU=ON L11 OR L12
 L15 371 SEA FILE=CAPLUS ABB=ON PLU=ON ANTISTRESS?/OBI
 L16 263622 SEA FILE=CAPLUS ABB=ON PLU=ON L13 OR L15
 L17 18 SEA FILE=CAPLUS ABB=ON PLU=ON L16 AND L9
 L19 QUE ABB=ON PLU=ON (GLUTAMINE (2A) (N(W)ETHYL OR ETHYLA
 MINO OR ETHYL AMINO)) OR THEANIN# OR SUNTHEANIN# OR NSC21
 308 OR NSC 21308
 L20 124 SEA FILE=WPIDS ABB=ON PLU=ON (GLUTAMINE (2A) (N(W)ETHYL OR
 ETHYLAMINO OR ETHYL AMINO)) OR THEANIN# OR SUNTHEANIN# OR
 NSC21308 OR NSC 21308
 L21 160569 SEA FILE=WPIDS ABB=ON PLU=ON ANXIET?/OBI OR STRESS?/OBI OR
 ANXIOTLYTI?/OBI OR ANTIANXIET?/OBI
 L22 2380 SEA FILE=WPIDS ABB=ON PLU=ON ANXIOLYTI? OR ANTISTRESS?
 L23 161374 SEA FILE=WPIDS ABB=ON PLU=ON L21 OR L22
 L24 13 SEA FILE=WPIDS ABB=ON PLU=ON L20 AND L23
 L25 166 SEA L4
 L26 275 SEA L19
 L27 275 SEA L25 OR L26
 L28 1019111 SEA L16
 L29 18 SEA L27 AND L28
 L30 33 DUP REM L17 L29 L24 (16 DUPLICATES REMOVED)

=> d ibib abs hitind 1-18 L30; d iall 19-27 l30; d bib abs 28-33 l30

L30 ANSWER 1 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:369129 CAPLUS

DOCUMENT NUMBER: 142:404299

TITLE: Method of treating extreme physical or mental
stress using L-theanine to obtain accelerated
 regeneration

INVENTOR(S): Geiss, Kurt-Reiner; Weiss, Michael; Yamazaki,
 Nagahiro; Juneja, Lekh Raj; Ozeki, Makoto

PATENT ASSIGNEE(S): Germany

SOURCE: U.S. Pat. Appl. Publ., 6 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005090512	A1	20050428	US 2003-695427	20031028
PRIORITY APPLN. INFO.:			US 2003-695427	20031028
AB The invention discloses a method for using L-Theanine for acceleration of regeneration after stressing. A quantity of at least 50 mg of L-Theanine is administered after phys. or mental stressing. For example, L-Theanine can be administered in the form of a foodstuff, such as a functional food with l-Theanine additive, or in the form of a complete drink.				
IC ICM A61K031-522				
INCL 514263370				
CC 1-12 (Pharmacology)				
Section cross-reference(s): 63				
ST theanine mental phys stress treatment				
IT Brain				

(elec. activity; L-theanine for treatment of extreme phys. or mental stress)

IT Beverages
Food
Human
Mental activity
Nervous system agents
Stress, animal
(L-theanine for treatment of extreme phys. or mental stress)

IT 3081-61-6, L-Theanine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(L-theanine for treatment of extreme phys. or mental stress)

L30 ANSWER 2 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2004:1000492 CAPLUS
DOCUMENT NUMBER: 142:309636
TITLE: The acute effects of L-theanine in comparison with alprazolam on anticipatory anxiety in humans
AUTHOR(S): Lu, Kristy; Gray, Marcus A.; Oliver, Chris; Liley, David T.; Harrison, Ben J.; Bartholomeusz, Cali F.; Phan, K. Luan; Nathan, Pradeep J.
CORPORATE SOURCE: Neuropsychopharmacology Laboratory, Brain Sciences Institute, Swinburne, Australia
SOURCE: Human Psychopharmacology (2004), 19(7), 457-465
CODEN: HUPSEC; ISSN: 0885-6222
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB L-Theanine (8-glutamylethylamide) is one of the predominant amino acids ordinarily found in green tea, and historically has been used as a relaxing agent. The current study examined the acute effects of L-theanine in comparison with a standard benzodiazepine anxiolytic, alprazolam and placebo on behavioral measures of anxiety in healthy human subjects using the model of anticipatory anxiety (AA). Sixteen healthy volunteers received alprazolam (1 mg), L-theanine (200 mg) or placebo in a double-blind placebo-controlled repeated measures design. The acute effects of alprazolam and L-theanine were assessed under a relaxed and exptl. induced anxiety condition. Subjective self-reports of anxiety including BAI, VAMS, STAI state anxiety, were obtained during both task conditions at pre- and post-drug administrations. The results showed some evidence for relaxing effects of L-theanine during the baseline condition on the tranquil-troubled subscale of the VAMS. Alprazolam did not exert any anxiolytic effects in comparison with the placebo on any of the measures during the relaxed state. Neither L-theanine nor alprazolam had any significant anxiolytic effects during the exptl. induced anxiety state. The findings suggest that while L-theanine may have some relaxing effects under resting conditions, neither L-theanine nor alprazolam demonstrate any acute anxiolytic effects under conditions of increased anxiety in the AA model.

CC 1-11 (Pharmacology)
ST anxiolytic L theanine alprazolam anxiety
IT Anxiety
Anxiolytics
Human
(acute effects of L-theanine (Suntheanine) in comparison with alprazolam (Xanax) on anticipatory anxiety in humans)

IT 3081-61-6, Suntheanine 28981-97-7, Xanax
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(acute effects of L-theanine (Suntheanine) in comparison with
alprazolam (Xanax) on anticipatory **anxiety** in humans)

REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 3 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2004:598969 CAPLUS

DOCUMENT NUMBER: 141:199680

TITLE: Theanine, a specific glutamate derivative in green
tea, reduces the adverse reactions of doxorubicin by
changing the glutathione level

AUTHOR(S): Sugiyama, Tomomi; Sadzuka, Yasuyuki

CORPORATE SOURCE: Department of Food Science Research for Health,
National Institute of Health and Nutrition,
Shinjuku-ku, Tokyo, 162-8636, Japan

SOURCE: Cancer Letters (Amsterdam, Netherlands) (2004),
212(2), 177-184

CODEN: CALEDQ; ISSN: 0304-3835

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We previously showed that theanine, a specific glutamate derivative in green
tea, decreased doxorubicin (DOX)-induced adverse reactions such as the
induction of the lipid peroxide level and the reduction of glutathione
peroxidase activity in normal tissues. To clarify how theanine attenuates
the adverse reactions of DOX, we have focused on the effects of theanine
on glutamate and glutathione (GSH) levels in normal tissues. The
administration of theanine to mice increased the glutamate concentration in the
liver and heart, and not in tumors. In vitro exams. indicated that
theanine was metabolized to glutamate mainly in the liver. Moreover,
theanine inhibited GSH reduction induced by DOX in the liver and heart.
Therefore, these results suggested that theanine attenuated the
DOX-induced adverse reactions involved in oxidative damage, due to
increase in glutamate and the recovery of GSH levels in normal tissues.

CC 1-6 (Pharmacology)

IT Cytoprotective agents

Heart

Liver

Oxidative **stress**, biological

(theanine in green tea, reduces adverse reactions of doxorubicin by
changing glutathione level)

IT 3081-61-6, Theanine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(theanine in green tea, reduces adverse reactions of doxorubicin by
changing glutathione level)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2004:506327 CAPLUS

DOCUMENT NUMBER: 141:64947

TITLE: Possible involvement of group I mGluRs in
neuroprotective effect of theanine

AUTHOR(S): Nagasawa, Kazuki; Aoki, Hiromitsu; Yasuda, Eri; Nagai,
Katsuhito; Shimohama, Shun; Fujimoto, Sadaki

CORPORATE SOURCE: Department of Environmental Biochemistry, Kyoto
Pharmaceutical University, Kyoto, 607-8414, Japan

SOURCE: Biochemical and Biophysical Research Communications
(2004), 320(1), 116-122

PUBLISHER: Elsevier Science
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We investigated the mol. mechanism underlying the neuroprotective effect of theanine, a green tea component, using primary cultured rat cortical neurons, focusing on group I metabotropic glutamate receptors (mGluRs). Theanine and a group I mGluR agonist, DHPG, inhibited the delayed death of neurons caused by brief exposure to glutamate, and this effect of theanine was abolished by group I mGluR antagonists. Although the administration of glutamate alone decreased the neuronal expression of phospholipase C (PLC)- β 1 and - γ 1, which are linked to group I mGluRs, their expression was equal to the control levels on cotreatment with theanine. Treatment with theanine or DHPG alone for 5-7 days resulted in increased expression of PLC- β 1 and - γ 1, and the action of theanine was completely abolished by group I mGluR antagonists. These findings indicate that group I mGluRs might be involved in neuroprotective effect of theanine by increasing the expression levels of PLC- β 1 and - γ 1.

CC 1-11 (Pharmacology)

IT Oxidative **stress**, biological
(involvement of group I metabotropic glutamate receptors (mGluRs) in neuroprotective effect of theanine)

IT **3081-61-6**, Theanine

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(involvement of group I metabotropic glutamate receptors (mGluRs) in neuroprotective effect of theanine)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 5 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 2003:875104 CAPLUS

DOCUMENT NUMBER: 139:341792

TITLE: **Stress** inhibition composition,
theanine-containing granule and process for producing
the same

INVENTOR(S): Okayama, Kenichi

PATENT ASSIGNEE(S): Otsuka Chemical Holdings Co., Ltd., Japan

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003090738	A1	20031106	WO 2003-JP5240	20030424
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2003321355	A2	20031111	JP 2002-124101	20020425

PRIORITY APPLN. INFO.:

JP 2002-124101

A 20020425

AB It is a primary aspect to provide a stress inhibition composition whose adverse influence on health, even if frequently administered, is scarce and which is excellent in stress inhibition effects. It is a secondary aspect to obtain, even when a specified stress inhibition component is employed as an active ingredient, granules of properties ensuring suitable use in a process for producing the above stress inhibition composition and further to efficiently produce the granules. According to the primary aspect, there is provided a stress inhibition composition characterized by containing theanine.

According to the secondary aspect, there is provided a process for producing theanine-containing granules wherein theanine reduced to particles and saccharides reduced to particles while causing them to flow are formed into granules whose theanine content is 10 weight% or higher, characterized in that of the theanine particles, portion left on a 60-mesh sieve is 20 weight% or more, preferably 50 weight% or more. Granules were prepared from theanine 12.6, trehalose 16, and beat sugar balance to 100 %. The granules showed excellent tableting property.

IC ICM A61K031-198

ICS A61K009-16; A61P025-00; A61P025-18; A61P043-00; A23L001-305;
A61P001-30

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 17, 18

ST theanine granule tablet **stress** inhibition

IT Drug delivery systems

(granules; **stress** inhibition composition containing theanine-containing granule, and process for producing same)

IT Health food

Stress, animal(**stress** inhibition composition containing theanine-containing granule, and process for producing same)

IT Drug delivery systems

(tablets; **stress** inhibition composition containing theanine-containing granule, and process for producing same)

IT 3081-61-6, Theanine

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**stress** inhibition composition containing theanine-containing granule, and process for producing same)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 6 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 7

ACCESSION NUMBER: 2003:133061 CAPLUS

DOCUMENT NUMBER: 138:175880

TITLE: Formulation containing (lyso-) phosphatidylserine for the prevention and treatment of **stress** states in warm-blooded animals

INVENTOR(S): Jaeger, Ralf; Boekenkamp, Dirk

PATENT ASSIGNEE(S): Degussa Bioactives G.m.b.H. & Co. K.-G., Germany

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003013549	A2	20030220	WO 2002-EP8940	20020809

WO 2003013549 A3 20031106
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 DE 10139250 A1 20030227 DE 2001-10139250 20010809
 DE 10235760 A1 20030306 DE 2002-10235760 20020805
 EP 1414469 A2 20040506 EP 2002-754989 20020809
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
 BR 2002011814 A 20040908 BR 2002-11814 20020809
 JP 2004537577 T2 20041216 JP 2003-518556 20020809
 ZA 2004000830 A 20040921 ZA 2004-830 20040202
 US 2004234544 A1 20041125 US 2004-486314 20040206

PRIORITY APPLN. INFO.:

DE 2001-10139250 A 20010809
 DE 2002-10235760 A 20020805
 WO 2002-EP8940 W 20020809

AB The invention relates to a formulation containing phosphatidylserine (PS) and/or lyso-phosphatidylserine for the prevention and treatment of mental and phys. stress states. The phosphatidylserine is combined inter alia with vegetable exts. According to the invention, daily doses range from 50 -1000 mg PS, administered over a maximum period of six months. Preferred subjects are human beings of 10-50 yr of age.

IC ICM A61K031-66
 ICS A61K035-78; A61K031-185; A61K031-195; A61K031-205; A61K031-40; A61P025-22; A23L001-30

CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1, 18

ST phosphatidylserine lysophosphatidylserine plant ext **stress** human

IT Natural products, pharmaceutical
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (Lingzhi, extract of; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)

IT Allium sativum
 Chamomile
 Ephedra
 Ginkgo
 Hypericum
 Panax
 Passiflora
 Paullinia cupana
 Pfaffia paniculata
 Piper methysticum
 Salix
 Schisandra
 Sedum roseum
 Valeriana officinalis
 (extract of; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)

IT Aging, animal
 Cushing's syndrome
 Fatigue, biological
 Human

- Stress, animal
- Wound healing
 - (formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT Alcohols, biological studies
- Amino acids, biological studies
- Carbohydrates, biological studies
- Fatty acids, biological studies
- Lysophosphatidylserines
- Neurotransmitters
- Phosphatidylcholines, biological studies
- Phosphatidylethanolamines, biological studies
- Phosphatidylinositols
- Phosphatidylserines
- Trace elements, biological studies
- Vitamins
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT Drug delivery systems
 - (liqs.; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT Embryophyta
 - (medicinal plant; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT Drug delivery systems
 - (solids; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT Egg, poultry
- Glycine max
- Milk
 - (source of (lyso-) phosphatidylserine; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT Medicine
 - (sports; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT Diet
 - (supplements; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT 50-23-7, Cortisol
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - (formation, inhibitors; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT 56-45-1, L-Serine, biological studies 60-18-4, L-Tyrosine, biological studies 62-49-7, Choline 63-91-2, L-Phenylalanine, biological studies 64-17-5, Ethanol, biological studies 67-52-7D, Barbituric acid, derivs. 73-31-4, Melatonin 107-35-7, Taurine 541-15-1, Carnitine 3081-61-6, Theanine 7631-86-9, Silica, biological studies 32839-18-2 177024-62-3, Glycine, N-(aminoiminomethyl)-N-methyl-, 2-hydroxy-1,2,3-propanetricarboxylate 208535-04-0, Glycine, N-(aminoiminomethyl)-N-methyl-, mono(2-oxopropanoate)
 - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in warm-blooded animals)
- IT 9002-60-2, ACTH, biological studies
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - (symptoms of disturbed function; formulation containing (lyso-) phosphatidylserine for prevention and treatment of **stress** in

warm-blooded animals)

L30 ANSWER 7 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 8

ACCESSION NUMBER: 2003:40112 CAPLUS

DOCUMENT NUMBER: 138:72301

TITLE: Protein-herb-based food composition offering
stress relaxation to mammals

INVENTOR(S): Fischer, Christa Maria; Weber, Regina Brigitte

PATENT ASSIGNEE(S): The Procter & Gamble Company, USA

SOURCE: Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1275308	A1	20030115	EP 2001-117090	20010713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
WO 2003005838	A1	20030123	WO 2002-US22028	20020711
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: EP 2001-117090 A 20010713

AB The present invention provides a food composition, preferably for use as a beverage or other liquid food, which delivers a stress-alleviating effect to mammals, especially humans. The active ingredients of this composition are protein fractions and herbal exts.

IC ICM A23L001-30

ICS A23L001-305; A61K035-78; A61K038-00; A61K031-195

CC 17-6 (Food and Feed Chemistry)

Section cross-reference(s): 63

ST food beverage protein theanine peptide herb **antistress**IT **Stress**, animal(agents for control of; food composition offering **stress** relaxation to mammals)

IT Food

(aqueous; protein-herb-based food composition offering **stress** relaxation to mammals)

IT Melissa officinalis

(balm mint; protein-herb-based food composition offering **stress** relaxation to mammals)

IT Citrus sinensis

(blossom; protein-herb-based food composition offering **stress** relaxation to mammals)

IT Food

(dyes; protein-herb-based food composition offering **stress** relaxation to mammals)

IT Nutrients

(enteral; protein-herb-based food composition offering **stress** relaxation to mammals)

IT Beverages
(food composition offering **stress** relaxation to mammals)

IT Dyes
(food; protein-herb-based food composition offering **stress** relaxation to mammals)

IT Avena sativa
(green; protein-herb-based food composition offering **stress** relaxation to mammals)

IT Beverages
(health; protein-herb-based food composition offering **stress** relaxation to mammals)

IT Flower
(orange; protein-herb-based food composition offering **stress** relaxation to mammals)

IT Antioxidants
Chamomile
Flavor
Flavoring materials
Griffonia
Herb
Human
Humulus
Hypericum
Lavandula
Milk
Passiflora
Piper methysticum
Schisandra
Sweetening agents
Valeriana
Zingiber officinale
(protein-herb-based food composition offering **stress** relaxation to mammals)

IT Vitamins
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(protein-herb-based food composition offering **stress** relaxation to mammals)

IT Peptides, biological studies
Proteins
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein-herb-based food composition offering **stress** relaxation to mammals)

IT Scutellaria
(skullcap; protein-herb-based food composition offering **stress** relaxation to mammals)

IT 124-38-9, Carbon dioxide, biological studies 7235-40-7, β -Carotene
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(protein-herb-based food composition offering **stress** relaxation to mammals)

IT 50-81-7, Vitamin C, biological studies 57-50-1, Sucrose, biological studies 81-07-2, Saccharin 3081-61-6, Theanine 8013-17-0, Invert sugar 22839-47-0, Aspartame 55589-62-3, Acesulfame potassium 62568-57-4, Delta sleep-inducing peptide (rabbit) 117592-45-7 481654-28-8, Prodiect F 240
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein-herb-based food composition offering **stress** relaxation to

mammals)
 REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 8 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 9
 ACCESSION NUMBER: 2002:832506 CAPLUS
 DOCUMENT NUMBER: 137:320327
 TITLE: Method for measuring the effect of **antistress**
 agents using bicycle ergometry
 INVENTOR(S): Geiss, Kurt-Reiner; Weiss, Michael; Falke, Wolfgang
 PATENT ASSIGNEE(S): Isme Privates Forschungsinstitut Fuer Sport, Medizin &
 Ernaehrung Gmbh, Germany
 SOURCE: Ger. Offen., 5 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10140653	A1	20021031	DE 2001-10140653	20010824
DE 10140653	C2	20030918		

PRIORITY APPLN. INFO.: DE 2001-10120178 A1 20010424

AB The invention concerns the bicycle ergometric method for measuring the
 effect of L-theanine after the stress and during the relaxation period.
 50-200 Mg of L-theanine doses are administered in form of beverages,
 dragees, capsules or effervescent tablets; blood and urine are analyzed;
 EEGs, skin resistance and blood pressure are taken.

IC ICM G01N033-15
 ICS G01N033-02; G01N033-48; A23L001-305; A23L002-52; A61K031-198

CC 1-11 (Pharmacology)
 Section cross-reference(s): 17

ST theanine **stress** relaxation bicycle ergometry

IT **Stress**, animal
 (agents for the reduction of; method for measuring the effect of
antistress agents using bicycle ergometry)

IT Drug delivery systems
 (capsules; method for measuring the effect of **antistress**
 agents using bicycle ergometry)

IT Drug delivery systems
 (dragees; method for measuring the effect of **antistress**
 agents using bicycle ergometry)

IT Brain
 (elec. activity; method for measuring the effect of **antistress**
 agents using bicycle ergometry)

IT Skin
 (elec. resistance of; method for measuring the effect of
antistress agents using bicycle ergometry)

IT Blood analysis
 Blood pressure
 Electric resistance
Stress relaxation
 Urine analysis
 (method for measuring the effect of **antistress** agents using
 bicycle ergometry)

IT Hormones, animal, biological studies
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL
 (Biological study); USES (Uses)
 (method for measuring the effect of **antistress** agents using

bicycle ergometry)
 IT Beverages
 (sports; method for measuring the effect of **antistress** agents
 using bicycle ergometry)
 IT Bicycles
 (**stress** test; method for measuring the effect of
 antistress agents using bicycle ergometry)
 IT Drug delivery systems
 (tablets, effervescent; method for measuring the effect of
 antistress agents using bicycle ergometry)
 IT 3081-61-6, L-Theanine
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (method for measuring the effect of **antistress** agents using
 bicycle ergometry)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 9 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 11
 ACCESSION NUMBER: 1999:549146 CAPLUS
 DOCUMENT NUMBER: 131:149342
 TITLE: Composition comprising theanine
 INVENTOR(S): Ueda, Tomoko; Nagato, Yukiko; Tanaka, Yukiko; Okubo,
 Tsutomu; Kobayashi, Kanari; Aoi, Nobuyuki; Shu, Seiji;
 Juneja, Lekh Raj
 PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 36 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9942096	A1	19990826	WO 1999-JP784	19990223
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
JP 2001089365	A2	20010403	JP 1998-57470	19980223
JP 2001089364	A2	20010403	JP 1998-142119	19980508
JP 2000053568	A2	20000222	JP 1998-234968	19980806
JP 2000143508	A2	20000523	JP 1998-330207	19981105
CA 2320368	AA	19990826	CA 1999-2320368	19990223
AU 9925488	A1	19990906	AU 1999-25488	19990223
EP 1057483	A1	20001206	EP 1999-905269	19990223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000247878	A2	20000912	JP 1999-235538	19990823
US 6831103	B1	20041214	US 2000-655336	20000905
US 2001001307	A1	20010517	US 2001-757586	20010111
US 6589566	B2	20030708		
PRIORITY APPLN. INFO.:			JP 1998-57470	A 19980223
			JP 1998-142119	A 19980508
			JP 1998-234968	A 19980806

JP 1998-330207 A 19981105
 WO 1999-JP784 W 19990223
 US 1999-403486 A3 19991022
 US 2000-655336 A3 20000905

AB The invention relates to a composition comprising theanine which is used for depression and amelioration of the symptom caused by degradation of homeostatic function, and a mineral composition comprising theanine and a mineral. A composition which can be used for depressing and ameliorating the above-mentioned symptom and a mineral composition which is reduced in a taste peculiar to a metal and can be administrated with ease.

IC ICM A61K031-16
 ICS A61K033-04; A61K033-06; A61K033-18; A61K033-26; A61K033-30;
 A61K033-32; A61K033-34; A23L001-30; A23L001-304

CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1, 17

IT **Anxiety**
 Food
 Obesity

(composition comprising theanine for depression and amelioration of symptom caused by degradation of homeostatic function)

IT **3081-61-6**, Theanine 7439-89-6, Iron, biological studies
 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese,
 biological studies 7439-98-7, Molybdenum, biological studies
 7440-02-0, Nickel, biological studies 7440-09-7, Potassium, biological
 studies 7440-47-3, Chromium, biological studies 7440-50-8, Copper,
 biological studies 7440-62-2, Vanadium, biological studies 7440-66-6,
 Zinc, biological studies 7440-70-2, Calcium, biological studies
 7553-56-2, Iodine, biological studies 7782-49-2, Selenium, biological
 studies
 RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
 use); BIOL (Biological study); PROC (Process); USES (Uses)
 (composition comprising theanine for depression and amelioration of symptom
 caused by degradation of homeostatic function)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 10 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 12

ACCESSION NUMBER: 1998:98721 CAPLUS

DOCUMENT NUMBER: 128:140064

TITLE: Effects of L-theanine on the release of α -brain
 waves in human volunteers

AUTHOR(S): Kobayashi, Kanari; Nagato, Yukiko; Aoi, Nobuyuki;
 Juneja, Lekh Raj; Kim, Mujo; Yamamoto, Takehiko;
 Sugimoto, Sukeo

CORPORATE SOURCE: Taiyo Kagaku Co., Ltd., Yokkaichi, 510, Japan

SOURCE: Nippon Nogei Kagaku Kaishi (1998), 72(2), 153-157
 CODEN: NNKKAA; ISSN: 0002-1407

PUBLISHER: Nippon Nogei Kagakkai

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB L-Theanine is an amino acid found in green tea leaf and in its infusion, and is known to control excitement caused by caffeine. It is also known that the oral administration of L-theanine to rats results in a decrease of serotonin and increase of catecholamines in their brain. L-Theanine has been confirmed to be safe in animal expts. We found recently that oral intake of L-theanine caused a feeling of relaxation among the human volunteers examined. These observations led us to do expts. on the effects of administration of L-theanine on the brain elec. waves. Eight female university students were selected as volunteers. Four of them were ranked to be Grade I (the highest anxiety) and the remaining 4, Grade V (the

lowest anxiety) in an investigation done by the manifest anxiety scale method. A dose of oral administration of 200 mg of L-theanine dissolved in 100 mL of water resulted in the generation of α -elec. waves in the occipital and parietal regions of the brains of the subjects. The emission intensity of α -brain waves (integrated as a function of investigation times and area) was significantly greater in the group of Grade I than that of Grade V. These results indicate the possibility for L-theanine to be applied to foods and beverages as a new type of functional food ingredient for its relaxation effect.

CC 18-3 (Animal Nutrition)

IT **Anxiolytics**

Hypnotics and Sedatives

Tea (Camellia sinensis)

(effects of L-theanine on release of α -brain waves in humans)

IT **3081-61-6, L-Theanine**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);

USES (Uses)

(effects of L-theanine on release of α -brain waves in humans)

L30 ANSWER 11 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 14

ACCESSION NUMBER: 1994:525260 CAPLUS

DOCUMENT NUMBER: 121:125260

TITLE: **Antistress** agents containing L-theanine

INVENTOR(S): Fujii, Wataru; Suwa, Yoshihide; Nagai, Hajime; Inui, Takako

PATENT ASSIGNEE(S): Suntory Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06100442	A2	19940412	JP 1992-248247	19920917
JP 2904655	B2	19990614		

PRIORITY APPLN. INFO.: JP 1992-248247 19920917

AB Antistress agents containing L-theanine (I) as an active ingredient are claimed. The antistress agents are useful as prophylactic and therapeutic agents for mental and phys. disorders induced by stress. Pretreatment of rats with 2 g/kg p.o. I reduced isoproterenol-induced increase of heart rate from 504 count /min to 456 count/min (434 count/min for an untreated control). A beverage (100 mL/bottle) was prepared from an aqueous solution containing

I 20 g, Na DL-tartrate 0.1 g, succinic acid 9 mg, syrup 800 g, citric acid 12 g, vitamin C 10 g, flavor 15 mL, KOH 1 g, and MgSO₄ 0.5 g in 10 L.

IC ICM A61K031-195

ICS A61K031-195

CC 1-11 (Pharmacology)

Section cross-reference(s): 63

ST theanine **stress** inhibitor; catecholamine antagonist theanine **stress** inhibitor

IT **Stress**, biological

(inhibitors of, theanine-containing agents as)

IT Adrenergic antagonists

(β -, theanine, **stress** inhibitors containing)

IT **3081-61-6, L-Theanine**

RL: BIOL (Biological study)

(stress inhibitors containing, as catecholamine antagonist)

L30 ANSWER 12 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:960104 CAPLUS

TITLE: **Stress**-relaxing and soothing compositions
and their use for pharmaceuticals and foods

INVENTOR(S): Koseki, Makoto

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005232045	A2	20050902	JP 2004-41255	20040218
PRIORITY APPLN. INFO.:			JP 2004-41255	20040218

AB Title compns., powders, tablets, candies, beverages, and chewing gum contain theanine, herb, GABA, and/or palatinose. Thus, Suntheanine (theanine) at 50 or 200 mg p.o. increased α wave activity in the brain of volunteers diagnosed with high- and low-anxiety by Manifest Anxiety Scale.

IC ICM A61K031-16
ICS A23G003-00; A23G003-30; A23L001-30; A23L001-305; A23L002-52; A61K031-198; A61K031-7016; A61K035-78; A61P025-00

CC 1-11 (Pharmacology)
Section cross-reference(s): 17, 63

ST **anxiolytic** theanine herb GABA palatinose; **antistress**
soothing food theanine herb GABA palatinose

IT **Anxiety**
Anxiolytics
Apocynum venetum
Beverages
Black cohosh
Candy
Chamomile
Chewing gum
Health food
Herb
Human
Humulus lupulus
Hypericum
Melissa officinalis
Passiflora
Rosmarinus officinalis
Stress, animal
Valeriana
(**antistress** and **anxiolytic** compns. containing theanine, herb, GABA, and/or palatinose)

IT Panax pseudoginseng
(exts.; **antistress** and **anxiolytic** compns. containing theanine, herb, GABA, and/or palatinose)

IT Drug delivery systems
(powders; **antistress** and **anxiolytic** compns. containing theanine, herb, GABA, and/or palatinose)

IT Drug delivery systems
(tablets; **antistress** and **anxiolytic** compns. containing theanine, herb, GABA, and/or palatinose)

IT 3081-61-6P, Suntheanine
 RL: BPN (Biosynthetic preparation); FFD (Food or feed use); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (antistress and anxiolytic compns. containing theanine, herb, GABA, and/or palatinose)

IT 56-12-2, GABA 13718-94-0, Palatinose
 RL: FFD (Food or feed use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antistress and anxiolytic compns. containing theanine, herb, GABA, and/or palatinose)

IT 56-85-9, L-Glutamine 557-66-4, Ethylamine hydrochloride
 RL: BCP (Biochemical process); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
 (in enzymic synthesis of theanine; antistress and anxiolytic compns. containing theanine, herb, GABA, and/or palatinose)

L30 ANSWER 13 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:692272 CAPLUS

DOCUMENT NUMBER: 143:146715

TITLE: Anxiety disorder relieving or eliminating compositions containing γ -glutamyl-ethylamide (theanine) and their manufacture

INVENTOR(S): Koseki, Makoto; Okubo, Tsutomu; Juneja, Reka Raju; Suzuki, Tsutomu

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005206462	A2	20050804	JP 2004-11201	20040119
PRIORITY APPLN. INFO.:			JP 2004-11201	20040119

AB The compns., useful for relieving or eliminating symptoms of panic disorder, e.g. palpitation, sweating, breathlessness, chest pain, contain theanine (I). Also claimed are a method for manufacture of the compns. involving a step to compound I. I induces no memory disorders. Thus, i.p. administration of I 2 to mice showed significant antianxiety effect in the light-dark box test. Candies, beverages, etc., containing I were also formulated.

IC ICM A61K031-198

ICS A23L001-305; A61K035-78; A61P025-22

CC 1-11 (Pharmacology)

ST glutamylethylamide antianxiety agent food drug; theanine treatment panic disorder

IT Anxiety

Anxiolytics

Health food

Human

(anxiety disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT Asphyxia

(asphyxic feeling, in panic disorder; anxiety disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide

(theanine))

IT Breathing (animal)
(dyspnea, in panic disorder; **anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT Eczema
(in panic disorder; **anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT Camellia sinensis
(leaves, theanine extraction from; **anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT Heart, disease
(palpitation and chest pain, in panic disorder; **anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT **Anxiety**
(panic disorder; **anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT Sweat
(sweating, in panic disorder; **anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT Abdomen, disease
(unpleasantness, in panic disorder; **anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT **3081-61-6P, Theanine**
RL: BPN (Biosynthetic preparation); FFD (Food or feed use); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT 56-85-9, Glutamine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with ethylamine; **anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

IT 557-66-4, Ethylamine hydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with glutamine; **anxiety** disorder relieving or eliminating compns. containing γ -glutamyl-ethylamide (theanine))

L30 ANSWER 14 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:417179 CAPLUS

DOCUMENT NUMBER: 143:25648

TITLE: Modulating effects of Japanese food materials on human brain function

AUTHOR(S): Hatakeyama, Eiko

CORPORATE SOURCE: Kansei Fukushi Res. Cent., Tohoku Fukushi Univ., Sendai, 981-8522, Japan

SOURCE: Nippon Eiyo, Shokuryo Gakkaishi (2005), 58(2), 107-111
CODEN: NESGDC; ISSN: 0287-3516

PUBLISHER: Nippon Eiyo, Shokuryo Gakkai

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review. Using the Profile of Mood States (POMS) test, we collected data on the state of mind of elementary and junior high school students, who registered as markedly high on the Anger-Hostility (A-H) scale. The data were then cross-referenced with data from a survey of the subjects' food content. The high A-H group was found to have a generally lower dietary content of Japanese food materials. Using university students, further research was undertaken to investigate whether Japanese foodstuffs are

healthier for both body and mind. The subjects were given healthy and balanced Japanese-style meals for five days. Anal. of blood samples showed an improvement in the levels of neutral fats in men and total cholesterol in women. POMS scores for high A-H, Tension-Anxiety, Depression-Dejection and Fatigue were also improved. We then evaluated the modulating effects of L- γ -glutamyl Et amide (theanine) in green tea and soy protein hydrolyzate (soy peptides) chosen as Japanese food materials on human brain functions by investigation of cerebral blood flow and other non-invasive measurements. Oxy-Hb concentration and cerebral blood flow at the forehead determined by near IR spectroscopy (NIRS) did not increase as compared with the placebo while performing assigned tasks when the subjects ingested theanine or soy peptides. Addnl., POMS scores were improved in the theanine group, and salivary cortisol was significantly lower after performing the tasks in the case of soy peptide ingestion compared with the placebo. These results suggest that ingestion of theanine or soy peptides affects brain activity and may decrease stress.

CC 18-0 (Animal Nutrition)

Section cross-reference(s): 1

ST review Japanese food component modulation brain function; theanine soybean peptide **stress** redn review

IT **Stress**, biological

(reduction of; modulating effects of Japanese food materials on human brain function)

IT 3081-61-6, Theanin

RL: PAC (Pharmacological activity); BIOL (Biological study)

(modulating effects of Japanese food materials on human brain function)

L30 ANSWER 15 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:512389 CAPLUS

DOCUMENT NUMBER: 141:59667

TITLE: Marine animal-derived mineral compositions for improvement of biological balance and treatment of various diseases

INVENTOR(S): Someya, Hideo; Sato, Noriaki

PATENT ASSIGNEE(S): Marine Bio Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004175680	A2	20040624	JP 2002-340508	20021125
PRIORITY APPLN. INFO.:			JP 2002-340508	20021125
AB Title compns. contain fossil corals or marine animal minerals whose Ca has been substituted with marine Mg, and are useful for increasing bone d., lowering lower total cholesterol level and lower neutral lipid level, increasing HDL level, and treatment of arrhythmia, palpitation, blinking, headache, edema, anxiety, anger, irritation, excitement, stiff shoulder, fatigue, drowsiness, indigestion, hyperuricemia, hypertension (associated with renal disorder), hyperpotassemia, acidosis, hyperphosphatemia, and anemia. Thus, coral Ca tablets at 2700 mg/day for 3 mo lowered blood pressure from 140.2 mmHg to 132.5 mmHg in patients.				
IC ICM A61K035-02				
ICS A61K035-72; A61K045-06; A61P003-00				
CC 63-5 (Pharmaceuticals)				
Section cross-reference(s): 1, 18				
IT Acanthopanax senticosus				

Acidosis
Aloe barbadensis
Anemia (disease)
Angelica
Antiarrhythmics
Anticholesteremic agents

Anxiety

Anxiolytics

Calendula officinalis
Camellia sinensis
Carthamus tinctorius
Centella asiatica
Chamomile
Cimicifuga racemosa
Coral
Dimocarpus longan
Dyspepsia
Echinacea
Edema
Equisetum arvense
Fatigue, biological
Filipendula ulmaria
Ginkgo
Headache
Helianthus annuus
Human
Humulus lupulus
Hypericum perforatum
Hypertension
Hypolipemic agents
Kidney, disease
Lavandula spica
Mahonia aquifolium
Marigold
Marine animal
Matricaria recutita
Melissa officinalis
Momordica charantia
Passiflora
Passiflora incarnata
Paullinia cupana
Psychotropics
Punica granatum
Rosmarinus officinalis
Salix alba
Silybum marianum
Uncaria rhynchophylla
Uncaria tomentosa
Valeriana officinalis
Verbena officinalis

(marine animal-derived mineral compns. optionally containing plant extract

for

improvement of biol. balance and treatment of various diseases)

IT

56-81-5D, Glycerol, diacyl 154-23-4, Catechin 3081-61-6,
Theanine 9005-38-3, Sodium alginate 9012-76-4, Chitosan
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
study); USES (Uses)

(marine animal-derived mineral compns. optionally containing plant extract

for

improvement of biol. balance and treatment of various diseases)

L30 ANSWER 16 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:1007599 CAPLUS

DOCUMENT NUMBER: 142:212161

TITLE: Possible involvement of croup I mGluRs in neuroprotective effect of theanin, a green tea component

AUTHOR(S): Nagasawa, Kazuki

CORPORATE SOURCE: Dep. of Sanitary Chemistry, Kyoto Pharmaceutical University, Japan

SOURCE: Bio Industry (2004), 21(10), 58-64

CODEN: BIINEG; ISSN: 0910-6545

PUBLISHER: Shi Emu Shi Shuppan

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB The involvement of croup I mGluRs in neuroprotective effect of theanin, a green tea component, was studied in vitro and in vivo in rats. The results indicated that the neuroprotective effect of theanin against neuron apoptosis is mediated by mGluR1 and mGluR5 by increasing expression of oxidative stress-resistant PLC- β 1 and PLC- γ 1.

CC 1-11 (Pharmacology)

ST neuroprotective theanin green tea mGluR apoptosis oxidative stress

IT Antioxidants

Apoptosis

Oxidative stress, biological

(possible involvement of croup I mGluRs in neuroprotective effect of theanin, a green tea component)

IT 3081-61-6, Theanin

RL: DMA (Drug mechanism of action); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(possible involvement of croup I mGluRs in neuroprotective effect of theanin, a green tea component)

L30 ANSWER 17 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:637402 CAPLUS

DOCUMENT NUMBER: 134:365822

TITLE: L-theanine-a unique amino acid of green tea and its relaxation effect in humans. [Erratum to document cited in CA132:165251]

AUTHOR(S): Juneja, L. R.; Chu, D.-C.; Okubo, T.; Nagato, Y.; Yokogoshi, H.

CORPORATE SOURCE: Nutritional Foods Division, Taiyo Kagaku Co., Ltd., Yokkaichi, Mie, 510-0844, Japan

SOURCE: Trends in Food Science & Technology (2000), Volume Date 1999, 10(12), 425

CODEN: TFTEEH; ISSN: 0924-2244

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB The corrected version of Fig. 6 is given.

CC 17-0 (Food and Feed Chemistry)

ST erratum review theanine relaxant antistress green; review theanine relaxant antistress green erratum; theanine relaxant antistress green tea review erratum

IT Stress, animal

(agents for reduction of; L-theanine as unique amino acid of green tea and its relaxation effect in humans (Erratum))

IT 3081-61-6, L-Theanine

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological

study); OCCU (Occurrence)
(L-theanine as unique amino acid of green tea and its relaxation effect
in humans (Erratum))

L30 ANSWER 18 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:806421 CAPLUS

DOCUMENT NUMBER: 132:165251

TITLE: L-theanine - a unique amino acid of green tea and its
relaxation effect in humans

AUTHOR(S): Juneja, L. R.; Chu, D.-C.; Okubo, T.; Nagato, Y.;
Yokogoshi, H.

CORPORATE SOURCE: Nutritional Foods Division, Taiyo Kagaku Co., Ltd.,
Yokkaichi, Mie, Japan

SOURCE: Trends in Food Science & Technology (1999), 10(6-7),
199-204

CODEN: TFTEEH; ISSN: 0924-2244

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 21 refs. Since ancient times, it has been said that
drinking green tea brings relaxation. The substance that is responsible
for a sense of relaxation is theanine. Theanine is a unique amino acid
found almost solely in tea plants and the main component responsible for
the exotic taste of green tea. It was found that L-theanine administered
i.p. to rats reached the brain within 30 min without any metabolic change.
Theanine also acts as a neurotransmitter in the brain and decreases blood
pressure significantly in hypertensive rats. In general, animals always
generate very weak elec. pulses on the surface of the brain, called brain
waves. Brain waves are classified into four types, namely α ,
 β , δ and θ -waves, based on mental conditions. Generation
of α -waves is considered to be an index of relaxation. In human
volunteers, α -waves were generated on the occipital and parietal
regions of the brain surface within 40 min after the oral administration
of theanine (50-200 mg), signifying relaxation without causing drowsiness.
With the successful industrial production of L-theanine, we are now able to
supply Suntheanine (trade name of L-theanine) which offers a tremendous
opportunity for designing foods and medical foods targeting relaxation and
the reduction of stress. Taiyo Kagaku Co., Ltd, Japan won the 1998 'Food
Ingredient Research Award' for development of Suntheanine at Food
Ingredients in Europe (Frankfurt). The judges felt it was a particularly
well-documented and fascinating piece of research.

CC 17-0 (Food and Feed Chemistry)

ST review theanine relaxant **antistress** green tea

IT **Stress**, animal

(agents for reduction of; L-theanine, a unique amino acid of green tea and
its relaxation effect in humans)

IT **3081-61-6**, L-Theanine

RL: BAC (Biological activity or effector, except adverse); BOC (Biological
occurrence); BSU (Biological study, unclassified); BIOL (Biological
study); OCCU (Occurrence)

(L-theanine, a unique amino acid of green tea and its relaxation effect
in humans)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

nt,

administering (C1) sublingually in a two hour period, followed by
administering (C1) transdermally within the same two hour period;

(2) Treatment of migrainous headaches involving identifying a predetermined event that a patient associates with a higher incidence of migraine for them personally, in response to or anticipation of the occurrence of the event, transdermally administering (C1) within a two hour period every two hours for the duration of the predetermined event (preferably menses); and

(3) A transdermal delivery patch comprising (a1).

ACTIVITY - Antimigraine; Analgesic.

No biological data available.

MECHANISM OF ACTION - None given.

USE - Composition (C1) is useful for the treatment of migrainous headaches and hangovers (claimed) e.g. resulting from consumption of alcohol.

ADVANTAGE - Composition (C1) contains substantially no active ingredients other than those that are extractable from herbal sources. (C1) containing natural active ingredient is administered in a very low dosage (less than 400 mg per dose). (C1) is effective both as an acute treatment and as a preventative treatment with drastic reduction in side effects e.g. gastrointestinal irritation. There is no need to obtain a prescription for use of (C1).

The transdermal delivery of (C1) can be designed so that the rate of delivery of the parthenolide closely follows the rate of the clearance of the parthenolide from the environment, thus keeping constant levels of parthenolide in the blood, and reducing parthenolide waste and overdosing problems.

Composition (C1) provides an improved safety profile particularly suitable for those users with whom additional caution need be exercised. (C1) is cost saving with a decreased reliance on expensive prescription medications and the reduction in the economic burden. The patients **anxiety** regarding invasive delivery methods e.g. needless is eliminated; avoids 'first pass effect' often resulting when a medication is administered orally.

Dwg.0/5

L30 ANSWER 19 OF 33 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2005342637 IN-PROCESS
DOCUMENT NUMBER: PubMed ID: 15992239
TITLE: Medicinal benefits of green tea: part I. Review of
noncancer health benefits.
AUTHOR: Cooper Raymond; Morre D James; Morre Dorothy M
CORPORATE SOURCE: PhytoScience, Inc., Los Altos, CA 94023, USA..
rcooperphd@aol.com
SOURCE: Journal of alternative and complementary medicine (New
York, N.Y.), (2005 Jun) 11 (3) 521-8.
Journal code: 9508124. ISSN: 1075-5535.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: NONMEDLINE; IN-PROCESS; NONINDEXED; Priority Journals
ENTRY DATE: Entered STN: 20050706
Last Updated on STN: 20050820
ABSTRACT:
Tea, in the form of green or black tea, is one of the most widely consumed beverages in the world. Extracts of tea leaves also are sold as dietary supplements. However, with the increasing interest in the health properties of tea and a significant rise in scientific investigation, this review covers recent findings on the medicinal properties and noncancer health benefits of both green and black tea. In Part II, a review of anticancer properties of

green tea extracts is presented. Green tea contains a unique set of catechins that possess biological activity in antioxidant, anti-angiogenesis, and antiproliferative assays potentially relevant to the prevention and treatment of various forms of cancer. Although there has been much focus on the biological properties of the major tea catechin epigallocatechin gallate (EGCg) and its antitumor properties, tea offers other health benefits; some due to the presence of other important constituents. Characteristics unrelated to the antioxidant properties of green and black teas may be responsible for tea's anticancer activity and improvement in cardiac health and atherosclerosis.

Theanine in green tea may play a role in reducing **stress**. Oxidized catechins (theaflavins in black tea) may reduce cholesterol levels in blood. Synergistic properties of green tea extracts with other sources of polyphenolic constituents are increasingly recognized as being potentially important to the medicinal benefits of black and green teas. Furthermore, due to presumed antioxidant and antiaging properties, tea is now finding its way into topical preparations. Each of these aspects is surveyed.

L30 ANSWER 20 OF 33 MEDLINE on STN DUPLICATE 13
 ACCESSION NUMBER: 97179819 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 9028055
 TITLE: Inhibitory effect of green tea on injury to a cultured renal epithelial cell line, LLC-PK1.
 AUTHOR: Yokozawa T; Dong E; Chung H Y; Oura H; Nakagawa H
 CORPORATE SOURCE: Research Institute for Wakan-Yaku, Toyama Medical and Pharmaceutical University, Japan.
 SOURCE: Bioscience, biotechnology, and biochemistry, (1997 Jan) 61 (1) 204-6.
 Journal code: 9205717. ISSN: 0916-8451.
 PUB. COUNTRY: Japan
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Biotechnology
 ENTRY MONTH: 199703
 ENTRY DATE: Entered STN: 19970327
 Last Updated on STN: 20030313
 Entered Medline: 19970318

ABSTRACT:

When cells from a cultured renal epithelial cell line, LLC-PK1, were cultured under hypoxic conditions (oxygen concentration of 2% or less) before reoxygenation was applied (95% air, 5% CO₂), the leakage of lactate dehydrogenase (LDH) into the medium increased. This phenomenon was inhibited in the presence of dimethyl sulfoxide, a hydroxyl radical scavenger, suggesting the involvement of free radicals. Such oxidative **stress** was significantly inhibited by a green tea extract, and more potently by a tannin mixture. On the other hand, under ordinary culture conditions (95% air, 5% CO₂), there was cell injury, although the LDH leakage was less than that under hypoxia/reoxygenation, and such injury was inhibited by the green tea extract and the tannin mixture.

CONTROLLED TERM: Animals
 Dimethyl Sulfoxide: PD, pharmacology
 Dose-Response Relationship, Drug
 Epithelial Cells
 Epithelium: DE, drug effects
 Epithelium: ME, metabolism
 Free Radical Scavengers: PD, pharmacology
 Glutamates: PD, pharmacology
 L-Lactate Dehydrogenase: DE, drug effects
 L-Lactate Dehydrogenase: SE, secretion
 LLC-PK1 Cells
Oxidative Stress: DE, drug effects

Oxygen: ME, metabolism
*Plant Extracts: PD, pharmacology
Research Support, Non-U.S. Gov't
Swine
Tannins: PD, pharmacology
*Tea: CH, chemistry

CAS REGISTRY NO.: 3081-61-6 (**theanine**); 67-68-5 (Dimethyl
Sulfoxide); 7782-44-7 (Oxygen)
CHEMICAL NAME: 0 (Free Radical Scavengers); 0 (Glutamates); 0 (Plant
Extracts); 0 (Tannins); EC 1.1.1.27 (L-Lactate
Dehydrogenase)

L30 ANSWER 21 OF 33 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 10

ACCESSION NUMBER: 2001033252 EMBASE
TITLE: Inhibitory effect of green tea tannin on free
radical-induced injury to the renal epithelial cell line,
LLC-PK(1).
AUTHOR: Yokozawa T.; Eun Ju Cho; Nakagawa T.; Terasawa K.; Takeuchi
S.
CORPORATE SOURCE: T. Yokozawa, Institute of Natural Medicine, Toyama Med. and
Pharmaceut. Univ., 2630 Sugitani, Toyama 930-0194, Japan
SOURCE: Pharmacy and Pharmacology Communications, (2000) Vol. 6,
No. 12, pp. 521-526.
Refs: 32
ISSN: 1460-8081 CODEN: PPCOFN
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20010208
Last Updated on STN: 20010208

ABSTRACT: Green tea is an antioxidant with radical-scavenging activity. To
investigate these properties we examined the effect of green tea tannin on the
viability of renal epithelial LLC-PK(1) cells treated with 3-
morpholinosydnonimine (SIN-1), sodium nitroprusside or pyrogallol. SIN-1
treatment significantly decreased cell viability, while a mixture of tannin and
SIN1 led to a recovery of viability from the cellular damage induced by free
radicals generated by SIN-1. Moreover, (-)-epigallocatechin 3-O-gallate (EGCg)
and (-)-epigallocatechin (EGC), the main components of tannin, produced higher
activity than tannin alone. Caffeine and **theanine**, also components
of green tea, did not show activity. However, tannin did not protect the cell
against nitric oxide (NO) or superoxide anion (O₂⁻) (produced by sodium
nitroprusside and pyrogallol, respectively). This result suggests that green
tea tannin protects LLC-PK(1) cells from oxidative **stress** caused by
free radicals generated by SIN-1, but not from **stress** induced by
either NO or O₂⁻. Moreover, and its components, EGCg and EGC.

CONTROLLED TERM: Medical Descriptors:
*cell damage
*kidney epithelium
cell line
tea
cell viability
oxidative stress
human
controlled study
human cell

article
Drug Descriptors:
*tannin
*free radical
*superoxide
linsidomine
nitroprusside sodium
pyrogallol
epigallocatechin
caffeine

CAS REGISTRY NO.: (tannin) 1401-55-4; (superoxide) 11062-77-4; (linsidomine) 16142-27-1, 33876-97-0; (nitroprusside sodium) 14402-89-2, 15078-28-1; (pyrogallol) 87-66-1; (epigallocatechin) 970-74-1; (caffeine) 30388-07-9, 58-08-2

L30 ANSWER 22 OF 33 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN

ACCESSION NUMBER: 2005296076 EMBASE

TITLE: L-**theanine**.

SOURCE: Alternative Medicine Review, (2005) Vol. 10, No. 2, pp. 136-138.
Refs: 16

ISSN: 1089-5159 CODEN: ALMRFP

COUNTRY: United States

DOCUMENT TYPE: Journal; (Short Survey)

FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

ENTRY DATE: Entered STN: 20050721

Last Updated on STN: 20050721

CONTROLLED TERM: Medical Descriptors:

tea
plant leaf
herbal medicine
drug mechanism
antioxidant activity
drug accumulation
drug effect
dose response
treatment indication

stress

anxiety

hypertension: DT, drug therapy

ovary tumor: DT, drug therapy

human

nonhuman

rat

animal experiment

animal model

short survey

Drug Descriptors:

*plant extract: CB, drug combination

*plant extract: DO, drug dose

*plant extract: IT, drug interaction

*plant extract: DT, drug therapy

*plant extract: TO, drug toxicity

*plant extract: PK, pharmacokinetics

*plant extract: PD, pharmacology

*plant extract: IV, intravenous drug administration

***theanine: CB, drug combination**

*theanine: DO, drug dose
*theanine: IT, drug interaction
*theanine: DT, drug therapy
*theanine: TO, drug toxicity
*theanine: PK, pharmacokinetics
*theanine: PD, pharmacology
*theanine: IV, intravenous drug administration
*Camellia sinensis extract: CB, drug combination
*Camellia sinensis extract: DO, drug dose
*Camellia sinensis extract: IT, drug interaction
*Camellia sinensis extract: DT, drug therapy
*Camellia sinensis extract: TO, drug toxicity
*Camellia sinensis extract: PK, pharmacokinetics
*Camellia sinensis extract: PD, pharmacology
*Camellia sinensis extract: IV, intravenous drug administration
food additive
antioxidant: CB, drug combination
antioxidant: DO, drug dose
antioxidant: IT, drug interaction
antioxidant: DT, drug therapy
antioxidant: TO, drug toxicity
antioxidant: PK, pharmacokinetics
antioxidant: PD, pharmacology
antioxidant: IV, intravenous drug administration
doxorubicin: CB, drug combination
doxorubicin: IT, drug interaction
doxorubicin: DT, drug therapy
doxorubicin: PD, pharmacology
idarubicin: CB, drug combination
idarubicin: IT, drug interaction
idarubicin: DT, drug therapy
idarubicin: PD, pharmacology
cisplatin: CB, drug combination
cisplatin: IT, drug interaction
cisplatin: DT, drug therapy
cisplatin: PD, pharmacology
irinotecan: CB, drug combination
irinotecan: IT, drug interaction
irinotecan: DT, drug therapy
irinotecan: PD, pharmacology
pirarubicin: CB, drug combination
pirarubicin: IT, drug interaction
pirarubicin: DT, drug therapy
pirarubicin: PD, pharmacology
unclassified drug

CAS REGISTRY NO.: (doxorubicin) 23214-92-8, 25316-40-9; (idarubicin) 57852-57-0, 58957-92-9; (cisplatin) 15663-27-1, 26035-31-4, 96081-74-2; (irinotecan) 100286-90-6; (pirarubicin) 95343-20-7

L30 ANSWER 23 OF 33 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN

ACCESSION NUMBER: 2003514939 EMBASE

TITLE: Green Tea Catechins and L-Theanine in Integrative Cancer Care: A Review of the Research.

AUTHOR: Huber L.G.

CORPORATE SOURCE: United States

SOURCE: Alternative and Complementary Therapies, (2003) Vol. 9, No. 6, pp. 294-298.

Refs: 48
ISSN: 1076-2809 CODEN: ACTHFZ
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
ENTRY DATE: Entered STN: 20040116
Last Updated on STN: 20040116
CONTROLLED TERM: Medical Descriptors:
*cancer: DT, drug therapy
*cancer: EP, epidemiology
*cancer: ET, etiology
*cancer: PC, prevention
*herbal medicine
*tea
*cancer inhibition
*cancer prevention
plant
carcinogenesis
cancer growth
growth inhibition
chemosensitivity
cancer chemotherapy
cardiotoxicity: PC, prevention
cardiotoxicity: SI, side effect
ascites tumor: DT, drug therapy
ovary cancer: DT, drug therapy
ovary cancer: ET, etiology
leukemia: DT, drug therapy
breast carcinoma: ET, etiology
breast carcinoma: PC, prevention
bladder carcinoma: ET, etiology
bladder carcinoma: PC, prevention
prostate carcinoma: ET, etiology
prostate carcinoma: PC, prevention
stomach cancer: EP, epidemiology
stomach cancer: ET, etiology
cell cycle
 anxiety
 stress
human
nonhuman
mouse
major clinical study
clinical trial
animal model
review
Drug Descriptors:
*catechin: DO, drug dose
*catechin: DT, drug therapy
*catechin: PK, pharmacokinetics
*catechin: PD, pharmacology
*catechin: PO, oral drug administration
 ***theanine: CT, clinical trial**
 ***theanine: CB, drug combination**
 ***theanine: CM, drug comparison**

*theanine: IT, drug interaction
*theanine: DT, drug therapy
*theanine: PK, pharmacokinetics
*theanine: PD, pharmacology
*theanine: IP, intraperitoneal drug administration
*plant extract: CT, clinical trial
*plant extract: CB, drug combination
*plant extract: CM, drug comparison
*plant extract: IT, drug interaction
*plant extract: DT, drug therapy
*plant extract: PK, pharmacokinetics
*plant extract: PD, pharmacology
*plant extract: IP, intraperitoneal drug administration
*plant extract: PO, oral drug administration
polyphenol: PD, pharmacology
polyphenol: TP, topical drug administration
epigallocatechin gallate: PD, pharmacology
epigallocatechin: PD, pharmacology
epicatechin: PD, pharmacology
epicatechin gallate: PD, pharmacology
antineoplastic agent: AE, adverse drug reaction
antineoplastic agent: CB, drug combination
antineoplastic agent: CM, drug comparison
antineoplastic agent: IT, drug interaction
antineoplastic agent: DT, drug therapy
doxorubicin: AE, adverse drug reaction
doxorubicin: CB, drug combination
doxorubicin: CM, drug comparison
doxorubicin: IT, drug interaction
doxorubicin: DT, drug therapy
idarubicin: CB, drug combination
idarubicin: CM, drug comparison
idarubicin: IT, drug interaction
idarubicin: DT, drug therapy
pirarubicin: CB, drug combination
pirarubicin: CM, drug comparison
pirarubicin: IT, drug interaction
pirarubicin: DT, drug therapy
unclassified drug

CAS REGISTRY NO.: (catechin) 13392-26-2, 154-23-4; (polyphenol) 37331-26-3;
(epigallocatechin gallate) 989-51-5; (epigallocatechin)
970-74-1; (epicatechin) 490-46-0; (epicatechin gallate)
863-03-6; (doxorubicin) 23214-92-8, 25316-40-9;
(idarubicin) 57852-57-0, 58957-92-9; (pirarubicin)
95343-20-7

CHEMICAL NAME: Adriamycin; Idamycin

L30 ANSWER 24 OF 33 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN

ACCESSION NUMBER: 2004:292296 BIOSIS

DOCUMENT NUMBER: PREV200400291778

TITLE: Effects of **theanine** on the release of brain alpha
wave in adult males.

AUTHOR(S): Kim, Kyung-Soo [Reprint Author]; Song, Chan Hee; Oh, Han
Jin

CORPORATE SOURCE: Family Medicine, St. Mary &N39; s Hospital of the
catholic university of korea, &N62, Seoul, Yeongdeungpo-gu,
150-713, South Korea
kskim@catholic.ac.kr

SOURCE: FASEB Journal, (2004) Vol. 18, No. 4-5, pp. Abst. 370.11.

<http://www.fasebj.org/>. e-file.

Meeting Info.: FASEB Meeting on Experimental Biology:
Translating the Genome. Washington, District of Columbia,
USA. April 17-21, 2004. FASEB.

ISSN: 0892-6638 (ISSN print).

DOCUMENT TYPE:

Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE:

English

ENTRY DATE:

Entered STN: 23 Jun 2004

Last Updated on STN: 23 Jun 2004

ABSTRACT: L-theanine is an amino acid in green tea and has been known to decrease serotonin and increase norepinephrine in rat brains, and also reported to produce mental relaxation, lower blood pressure and improve learning ability in human beings. But, few studies on these effects for human beings have been conducted so far. This study was conducted to evaluate the effect of L-theanine on the release of brain alpha waves known to be related with mental relaxation and concentration. Twenty healthy male volunteers aged 18 to 30 years without any physical and psychological diseases were recruited through written advertisement. This study was approved by Institutional Review Board of St. Mary's hospital and performed in a randomized placebo controlled double blind cross over fashion. Hospital ***Anxiety*** -Depression scale and modified Bepsi stress questionnaire were used to measure psychological state before administration. Alpha power values of EEG as a surrogate marker of mental relaxation and concentration were measured in frontal and occipital regions for 40 minutes after administration of placebo or test tablets(200.4mg; 50.1mg/tab) and 20 minute resting period. The same procedure crossed over at 7-day intervals. We analyzed average alpha power values in frontal and occipital regions at 10 minute intervals. Repeated ANOVA revealed that there were significant differences of occipital alpha power values between placebo and test groups with high anxiety ($P < 0.05$). The mean values at 20, 30, 40, 50 and 60 minute intervals were 0.23, 0.24, 0.28, 0.25 and 0.34 in placebo, and 0.23, 0.29, 0.40, 0.34, and 0.45 in test, respectively. But there were no significant differences of frontal and occipital alpha power values between placebo and test groups with low anxiety ($P > 0.05$). The results of this study suggest that L-theanine promote the release of brain alpha waves in young adult males with high anxiety. **KEYWORDS :**

Theanine , Green tea, Alpha wave, Mental relaxation, Table 1. Baseline data of subjects Variables Number (%) Sex male 20 (100%) Mean +/- SD Age (year) 24.42 +/- 4.76 Height (cm) 173.88 +/- 6.21 Weight (cm) 69.59 +/- 9.66 Hospital depression anxiety 9.80 +/- 2.80 6.30 +/- 2.27 Bepsi stress index 2.11 +/- 0.35 Figure 1. Frontal alpha power values between placebo and active groups. * $P < 0.05$ by paired t-test between placebo and active at 60 min time point Figure 2. Frontal alpha power values between placebo and active groups. * $P < 0.05$ by paired t-test between placebo and active at 60 min time point Table 2. alpha power values between placebo and test groups with low ***anxiety Channel Group alpha*** power value Mean (SE) 20min 30min 40min 50min 60min Frontal Placebo 0.10(0.01) 0.13(0.02) 0.19(0.03) 0.18(0.02) 0.17(0.02) Active 0.12(0.01) 0.13(0.02) 0.12(0.01) 0.16(0.02) 0.22(0.02) Occipital Placebo 0.22(0.02) 0.26(0.02) 0.36(0.05) 0.40(0.04) 0.42(0.03) Active 0.21(0.02) 0.24(0.03) 0.24(0.04) 0.32(0.04) 0.44(0.04) Figure 3. Frontal alpha power values between placebo and active groups with high anxiety * $P < 0.05$ by paired t-test between placebo and active at 60 min time point Figure 4. Occipital alpha power values between placebo and active groups with high anxiety * $P < 0.05$, ** $P < 0.01$: time and group effect by repeated ANOVA.

CONCEPT CODE:

General biology - Symposia, transactions and proceedings
00520

Biochemistry studies - General 10060

Nervous system - Physiology and biochemistry 20504

INDEX TERMS:

Major Concepts

Biochemistry and Molecular Biophysics; Nervous System
(Neural Coordination)

INDEX TERMS: Parts, Structures, & Systems of Organisms
brain: nervous system, alpha wave

INDEX TERMS: Chemicals & Biochemicals
L-theanine; theanine

INDEX TERMS: Methods & Equipment
ANOVA: mathematical and computer techniques; Bepsi
stress questionnaire: clinical techniques,
diagnostic techniques; EEG [electroencephalography]:
clinical techniques, diagnostic techniques

INDEX TERMS: Miscellaneous Descriptors
mental relaxation

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common): adult, male
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates,
Vertebrates

REGISTRY NUMBER: 3081-61-6 (L-theanine)
3081-61-6 (theanine)

L30 ANSWER 25 OF 33 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN

ACCESSION NUMBER: 2001:533763 BIOSIS

DOCUMENT NUMBER: PREV200100533763

TITLE: Correlations between central nervous parameters and
hormonal regulations during recovery from physical
stress are influenced by L-theanine.

AUTHOR(S): Weiss, M. [Reprint author]; Barthel, T. [Reprint author];
Schnittker, R. [Reprint author]; Geiss, K. E.; Falke, W.;
Juneja, L. R.

CORPORATE SOURCE: University of Paderborn, Paderborn, Germany

SOURCE: Amino Acids (Vienna), (2001) Vol. 21, No. 1, pp. 62. print.
Meeting Info.: 7th International Congress on Amino Acids
and Proteins. Vienna, Austria. August 06-10, 2001.
ISSN: 0939-4451.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 14 Nov 2001
Last Updated on STN: 23 Feb 2002

CONCEPT CODE: General biology - Symposia, transactions and proceedings
00520
Physiology - General 12002
Nutrition - General studies, nutritional status and methods
13202
Endocrine - General 17002
Nervous system - Pathology 20506

INDEX TERMS: Major Concepts
Clinical Endocrinology (Human Medicine, Medical
Sciences); Neurology (Human Medicine, Medical Sciences);
Nutrition; Physiology

INDEX TERMS: Chemicals & Biochemicals
L-theanine

INDEX TERMS: Miscellaneous Descriptors
physical stress recovery: central nervous

parameters-hormonal regulation correlations; Meeting Abstract

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

REGISTRY NUMBER: 3081-61-6 (L-**theanine**)

L30 ANSWER 26 OF 33 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:533759 BIOSIS
DOCUMENT NUMBER: PREV200100533759
TITLE: EEG-changes in humans during regeneration after heavy physical strain with the influence of L-**Theanine**; an amino acid in green tea.

AUTHOR(S): Barthel, T. [Reprint author]; Schnittker, R. [Reprint author]; Juneja, L. R. [Reprint author]; Geiss, K.-R. [Reprint author]; Liesen, H. [Reprint author]; Weiss, M. [Reprint author]

CORPORATE SOURCE: Institute of Sportsmedicine, University of Paderborn, Paderborn, Germany

SOURCE: Amino Acids (Vienna), (2001) Vol. 21, No. 1, pp. 59. print. Meeting Info.: 7th International Congress on Amino Acids and Proteins. Vienna, Austria. August 06-10, 2001. ISSN: 0939-4451.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 14 Nov 2001
Last Updated on STN: 23 Feb 2002

CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - General 10060
Physiology - General 12002
Nutrition - General studies, nutritional status and methods 13202

INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Nutrition; Physiology

INDEX TERMS: Chemicals & Biochemicals
L-**theanine**: central nervous system relaxing effects, green tea amino acid

INDEX TERMS: Methods & Equipment
electroencephalography [EEG]: physiological method

INDEX TERMS: Miscellaneous Descriptors
heavy physical strain regeneration; physical **stress** brain recovery; Meeting Abstract

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates,

Vertebrates

REGISTRY NUMBER: 3081-61-6 (L-theanine)

L30 ANSWER 27 OF 33 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:43407 BIOSIS

DOCUMENT NUMBER: PREV199799335395

TITLE: Quantitative estimation of physiological functions of various roots with different diameters in the root system of the tea tree.

AUTHOR(S): Okano, Kunio; Omae, Hide

CORPORATE SOURCE: National Res. Inst. Veg. Ornamental Plants Tea, Kanaya, Shizuoka 428, Japan

SOURCE: Japanese Journal of Crop Science, (1996) Vol. 65, No. 4, pp. 605-611.

CODEN: NISAAJ. ISSN: 0011-1848.

DOCUMENT TYPE: Article

LANGUAGE: Japanese

ENTRY DATE: Entered STN: 28 Jan 1997

Last Updated on STN: 28 Jan 1997

ABSTRACT: The root system of the tea (*Camellia sinensis* L.) tree consists of various types of roots with different diameters or ages. In order to control the growth of the root system, it is necessary to know the physiological functions of various types of roots within a root system quantitatively. Tea trees, two years after transplanting, were dug out from the field at the bud break stage of the first flush, then the roots were classified into four groups according to their diameter. Top/root ratio of the examined trees was around 1.5. Dry weight ratios of white rootlet (diameter lt 1.0mm), brown rootlet (1.0-2.0mm), medium root I (2.0-5.0mm) and medium root II (gt 5.0mm) in root systems were 30%, 10%, 15% and 45%, respectively. Rates of respiration and nitrogen uptake per unit dry weight were higher in the younger rootlets, while the content of total available carbohydrate (TAC) was higher in the lignified thick roots. Quantitatively, 75% of the respiration and 90% of nitrogen uptake in the root system was conducted by the rootlets less than 2.0mm in diameter. Contribution of the white rootlets to the total nutrient uptake of the root system was especially large. On the other hand, 84% of TAC in the root system was localized in the lignified roots more than 2.0mm in diameter. A higher level of **theanine**, a main palatable substance of tea, was detected in the white rootlet as compared to the lignified roots, indicating that the synthesis of this substance occurred in the newly developing roots. In the lignified roots, a large amount of arginine accumulated instead of *****theanine*****. From these results, ideotype of the root system in the tea tree was considered to be different according to the purpose of tea cultivation. A root system with higher proportion of rootlets would be desirable for increasing the yield and quality of the leaves. On the contrary, existence of well-developed lignified roots would be necessary for tolerating environmental **stresses**.

CONCEPT CODE: Plant physiology - Nutrition 51504
Plant physiology - Respiration, fermentation 51508
Plant physiology - Growth, differentiation 51510
Plant physiology - Translocation, accumulation 51520
Horticulture - Tropical, subtropical fruits and plantation crops 53004

INDEX TERMS: Major Concepts
Bioenergetics (Biochemistry and Molecular Biophysics);
Development; Horticulture (Agriculture); Nutrition;
Physiology

INDEX TERMS: Chemicals & Biochemicals

NITROGEN

INDEX TERMS: Miscellaneous Descriptors

crop industry; AGE; BIOBUSINESS; CROP YIELD; DIAMETER;
HORTICULTURE; LEAF QUALITY; NITROGEN UPTAKE;
RESPIRATION; ROOT GROWTH; ROOTS

ORGANISM: Classifier
Plantae 11000
Super Taxa
Plantae
Organism Name
plant
Taxa Notes
Plants

ORGANISM: Classifier
Theaceae 26845
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
tea
Camellia sinensis
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular
Plants

REGISTRY NUMBER: 7727-37-9 (NITROGEN)

L30 ANSWER 28 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-305138 [31] WPIDS
DOC. NO. CPI: C2005-094584
TITLE: Isolation of **theanine** useful for treating e.g.
cancer, comprises contacting plant material with solvent
to form **theanine** extract and contacting extract
with adsorbent followed by filtration of resultant
theanine-containing eluate.

DERWENT CLASS: A23 A97 B02 B04
INVENTOR(S): EKANAYAKE, A; LI, J J
PATENT ASSIGNEE(S): (EKAN-I) EKANAYAKE A; (LIJJ-I) LI J J; (PROC) PROCTER &
GAMBLE CO
COUNTRY COUNT: 108
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
US 2005084544	A1	20050421	(200531)*		8	C07D473-12	
WO 2005042470	A1	20050512	(200532)	EN		C07C231-22	
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE							
LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW							
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE							
DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG							
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ							
OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG							
US UZ VC VN YU ZA ZM ZW							

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2005084544	A1	US 2003-689910	20031021
WO 2005042470	A1	WO 2004-US34046	20041015

PRIORITY APPLN. INFO: US 2003-689910 20031021

INT. PATENT CLASSIF.:

MAIN: C07C231-22; C07D473-12
SECONDARY: A61K035-78; C07C237-06

BASIC ABSTRACT:

US2005084544 A UPAB: 20050517

NOVELTY - Isolating **theanine** from a plant material comprises contacting the plant material with a solvent to obtain an extract comprising **theanine**; contacting the extract with an adsorbent to form a **theanine**-containing eluate; and filtering the eluate to form a **theanine**-rich extract.

ACTIVITY - Cardiovascular-Gen.; Cytostatic; Tranquilizer; Nootropic; Muscle relaxant.

MECHANISM OF ACTION - None given.

USE - Isolation of **theanine** (claimed) useful for the treatment of cardiovascular disease and cancer; promoting mental and physical relaxation; decreasing **stress** and **anxiety**; and in dietary supplements.

ADVANTAGE - The process provides the **theanine** in high yield using waste tea material and the method is simple.

Dwg.0/0

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: A05-F01E; A12-W13; B10-B02J; B14-E11; B14-F01;
B14-F02; B14-H01; B14-J01B4; B14-J05A

L30 ANSWER 29 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2005-038462 [04] WPIDS

DOC. NO. CPI: C2005-012694

TITLE: Topical composition, useful for the treatment of migrainous headaches and hangovers e.g. resulting from consumption of alcohol, comprises parthenolide.

DERWENT CLASS: B02 B05

INVENTOR(S): ROBERTS, S C; ROBERTS, M D S C

PATENT ASSIGNEE(S): (ROBE-I) ROBERTS S C; (GELS-N) GELSTAT CORP

COUNTRY COUNT: 108

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
US 2004247705	A1	20041209	(200504)*		16	A61K035-78	
WO 2004110468	A1	20041223	(200504)	EN		A61K035-78	
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE							
LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW							
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE							
DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG							
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ							
OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG							
US UZ VC VN YU ZA ZM ZW							

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004247705	A1	US 2003-457028	20030606
WO 2004110468	A1	WO 2004-US17343	20040603

PRIORITY APPLN. INFO: US 2003-457028 20030606

INT. PATENT CLASSIF.:

MAIN: A61K035-78

SECONDARY: A61K009-70; A61K031-522

BASIC ABSTRACT:

US2004247705 A UPAB: 20050117

NOVELTY - A topically applied composition (C1) comprises parthenolide (a1).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) Treatment of migrainous headaches involving optionally identifying the first sign of an impending migrainous headache in a patient, responsive to the occurrence of the first sign in the patient, administering (C1) sublingually in a two hour period, followed by administering (C1) transdermally within the same two hour period;

(2) Treatment of migrainous headaches involving identifying a predetermined event that a patient associates with a higher incidence of migraine for them personally, in response to or anticipation of the occurrence of the event, transdermally administering (C1) within a two hour period every two hours for the duration of the predetermined event (preferably menses); and

(3) A transdermal delivery patch comprising (a1).

ACTIVITY - Antimigraine; Analgesic.

No biological data available.

MECHANISM OF ACTION - None given.

USE - Composition (C1) is useful for the treatment of migrainous headaches and hangovers (claimed) e.g. resulting from consumption of alcohol.

ADVANTAGE - Composition (C1) contains substantially no active ingredients other than those that are extractable from herbal sources. (C1) containing natural active ingredient is administered in a very low dosage (less than 400 mg per dose). (C1) is effective both as an acute treatment and as a preventative treatment with drastic reduction in side effects e.g. gastrointestinal irritation. There is no need to obtain a prescription for use of (C1).

The transdermal delivery of (C1) can be designed so that the rate of delivery of the parthenolide closely follows the rate of the clearance of the parthenolide from the environment, thus keeping constant levels of parthenolide in the blood, and reducing parthenolide waste and overdosing problems.

Composition (C1) provides an improved safety profile particularly suitable for those users with whom additional caution need be exercised. (C1) is cost saving with a decreased reliance on expensive prescription medications and the reduction in the economic burden. The patients **anxiety** regarding invasive delivery methods e.g. needless is eliminated; avoids 'first pass effect' often resulting when a medication is administered orally.

Dwg.0/5

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: B04-A08C; B04-A10; B06-A03; B10-B02J; B12-M02D;
B12-M02F; B12-M12B

L30 ANSWER 30 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2004-347748 [32] WPIDS

DNC C2004-132251

TI Composition useful for suppressing the appetite of a human being, reducing the incidence of obesity, and for use as an anti-**anxiety** agent, comprises L-**theanine**.

DC B05 D16

IN SPIEGEL, P

PA (SPIE-I) SPIEGEL P

CYC 1

PI US 2004082657 A1 20040429 (200432)* 4

ADT US 2004082657 A1 US 2002-279523 20021024

PRAI US 2002-279523 20021024

AN 2004-347748 [32] WPIDS

AB US2004082657 A UPAB: 20040520

NOVELTY - A composition (C1) comprises an L-theanine.

ACTIVITY - Tranquilizer; Anorectic.

MECHANISM OF ACTION - Appetite suppressor.

USE - For suppressing the appetite of a human being (claimed).

ADVANTAGE - L-Theanine functions as potent appetite suppressor, hence limits food intake, weight gain and thereby reduces the incidence of overweightedness and obesity. Also acts as an anti-anxiety agent. Being natural and healthy compound, L-theanine does not cause side effects associated with known appetite suppressors.

Dwg.0/0

L30 ANSWER 31 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2004-289493 [27] WPIDS

DNC C2004-111252

TI Decaffeinated coffee composition e.g. coffee drink, coffee bag and coffee powder for preventing stress, contains theanine and decaffeinated coffee.

DC B04 D13

PA (HONS) YAKULT HONSHA KK

CYC 1

PI JP 2004105003 A 20040408 (200427)* 14

ADT JP 2004105003 A JP 2002-267735 20020913

PRAI JP 2002-267735 20020913

AN 2004-289493 [27] WPIDS

AB JP2004105003 A UPAB: 20040426

NOVELTY - A decaffeinated coffee composition comprising theanine and decaffeinated coffee, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a decaffeinated coffee drink, which contains 0.07-30 mass% of theanine with respect to solid content of coffee; and

(2) a relaxation effect providing composition, which contains theanine and decaffeinated coffee.

ACTIVITY - Tranquilizer.

No biological data given.

MECHANISM OF ACTION - None given.

USE - The coffee is useful as a coffee drink (claimed), health food, clear foodstuff, coffee bag, coffee powder, pharmaceuticals and quasi-drug for preventing stress.

ADVANTAGE - The decaffeinated coffee composition has favorable flavor identical to original coffee. The decaffeinated coffee composition has caffeine having strong stimulation effect and the theanine has high relaxation effect.

Dwg.0/0

L30 ANSWER 32 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2004-002976 [01] WPIDS

DNC C2004-001374

TI Formulation for preventing and treating premenstrual syndrome, contains soybean isoflavone aglycon.

DC B04 D16

PA (NICH-N) NICHIMO KK

CYC 1

PI JP 2003300879 A 20031021 (200401)* 6
 ADT JP 2003300879 A JP 2002-106260 20020409
 PRAI JP 2002-106260 20020409
 AN 2004-002976 [01] WPIDS
 AB JP2003300879 A UPAB: 20040102
 NOVELTY - Formulation for preventing and treating premenstrual syndrome, comprising soybean isoflavone aglycon, is new.
 ACTIVITY - Gynecological.
 No suitable test details are given.
 MECHANISM OF ACTION - None given.
 USE - The formulation is useful for preventing and treating premenstrual syndrome.
 ADVANTAGE - The formulation reliably treats premenstrual syndrome e.g. irritation, **anxiety**.
 DESCRIPTION OF DRAWING(S) - The figure shows flow chart of the manufacturing process of isoflavone aglycon compound from soybean cake. (Drawing includes non-English language text).
 Dwg.1/1

L30 ANSWER 33 OF 33 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 AN 2003-138196 [13] WPIDS
 DNC C2003-035057
 TI Composition for use as medicine, quasi-drugs, health foods and beverages, for reducing mental fatigue, contains mixture of caffeine, **theanine**, and arginine, at specified ratio, as active components.
 DC B02 B05
 IN KAKUDA, T; NOZAWA, A; SAGESKA, Y; SUGIMOTO, A; SAGESAKA, Y
 PA (ITOE-N) ITO EN LTD; (ITOE-N) ITOEN KK
 CYC 28
 PI US 6462051 B1 20021008 (200313)* 11
 EP 1252892 A1 20021030 (200313) EN
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
 JP 2002322063 A 20021108 (200313) 8
 ADT US 6462051 B1 US 2001-951673 20010914; EP 1252892 A1 EP 2001-122145 20010914; JP 2002322063 A JP 2001-128279 20010425
 PRAI JP 2001-128279 20010425
 AN 2003-138196 [13] WPIDS
 AB US 6462051 B UPAB: 20030224
 NOVELTY - A composition for reducing mental fatigue contains a mixture of caffeine, **theanine**, and arginine as active components. The mixing ratio of caffeine, **theanine**, and arginine, is such that the ratio of caffeine is less than 1:1:1.
 ACTIVITY - Tranquilizer. A test drink was prepared by mixing 30 mg of caffeine, 60 mg of **theanine** and 60 mg of arginine, and adding 10% liquid sugar of fructose and glucose and 1% citric acid to obtain 190 ml of test drink. A solution containing 0.03% of Acesulfame K (RTM; a sweetener), 0.07% of tartaric acid and appropriate amount of flavors was utilized as control drink. 24 healthy persons aged, 19-48 years were selected as subjects. A set of 2 examinations in which each subject was given a control drink and a test drink. The subjects were given the test drink or the control drink at the time of 30 minutes before starting an exercise, and a 40 minutes running was imposed on subjects aged less than 80 years old, a 40 minutes jogging on subjects aged 30-40 years old, and 40 minute jogging and walk on subjects aged not less than 40 years old. Before and after the exercise, the subjects were measured for each of the concentration power, the fatigue tiredness, and degree of fatigue and vigor. Comparing the reaction time before and after exercise, in the examination receiving the test drink, the reaction time was shortened significantly after the exercise, relative to before the exercise, which

showed the test drink had an effect of elevating and maintaining the concentration power, and the quickness and flexibility of the mind.

USE - As a medicine, quasi-drugs, health foods and beverages, food additives, feeds and feed additives, for reducing mental fatigue which is caused by physical load, mental load, or other various factors, maintaining and enhancing concentration and mental vigor, in human and animals such as dogs, cats, horses and cattle, birds such as domestic fowls, and all other animals which can have mental **stress**.

ADVANTAGE - The composition exerts excellent effects allowing improvement in the mental function. The composition is highly safe for use by humans and animals, and are suitable for daily in take.

DESCRIPTION OF DRAWING(S) - The figure shows a graph showing the results obtained by reaction time in ATMT question search when the test drink was given and a control drink (control) was given to evaluate the concentration power.

Dwg.1/5

=> d que L45

L2 STR
/ Structure 10 in file .gra /

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L4 6 SEA FILE=REGISTRY FAM FUL L2
L9 482 SEA FILE=CAPLUS ABB=ON PLU=ON L4
L11 259444 SEA FILE=CAPLUS ABB=ON PLU=ON ANXIET?/OBI OR STRESS?/OBI OR
ANXIOTLYTI?/OBI OR ANTIANXIET?/OBI
L12 8185 SEA FILE=CAPLUS ABB=ON PLU=ON ANXIOLYTI?/OBI
L13 263562 SEA FILE=CAPLUS ABB=ON PLU=ON L11 OR L12
L15 371 SEA FILE=CAPLUS ABB=ON PLU=ON ANTISTRESS?/OBI
L16 263622 SEA FILE=CAPLUS ABB=ON PLU=ON L13 OR L15
L17 18 SEA FILE=CAPLUS ABB=ON PLU=ON L16 AND L9
L19 QUE ABB=ON PLU=ON (GLUTAMINE (2A) (N(W)ETHYL OR ETHYLA
MINO OR ETHYL AMINO)) OR THEANIN# OR SUNTHEANIN# OR NSC21
308 OR NSC 21308
L20 124 SEA FILE=WPIDS ABB=ON PLU=ON (GLUTAMINE (2A) (N(W)ETHYL OR
ETHYLAMINO OR ETHYL AMINO)) OR THEANIN# OR SUNTHEANIN# OR
NSC21308 OR NSC 21308
L21 160569 SEA FILE=WPIDS ABB=ON PLU=ON ANXIET?/OBI OR STRESS?/OBI OR
ANXIOTLYTI?/OBI OR ANTIANXIET?/OBI
L22 2380 SEA FILE=WPIDS ABB=ON PLU=ON ANXIOLYTI? OR ANTISTRESS?
L23 161374 SEA FILE=WPIDS ABB=ON PLU=ON L21 OR L22
L24 13 SEA FILE=WPIDS ABB=ON PLU=ON L20 AND L23
L25 166 SEA L4
L26 275 SEA L19
L27 275 SEA L25 OR L26
L28 1019111 SEA L16
L29 18 SEA L27 AND L28
L30 33 DUP REM L17 L29 L24 (16 DUPLICATES REMOVED)
L31 6395 SEA ("WEISS M"/AU OR "WEISS M A"/AU OR "WEISS M B"/AU OR
"WEISS M C"/AU OR "WEISS M D"/AU OR "WEISS M E"/AU OR "WEISS M
F"/AU OR "WEISS M G"/AU OR "WEISS M H"/AU OR "WEISS M I"/AU OR
"WEISS M J"/AU OR "WEISS M J S"/AU OR "WEISS M JR"/AU OR
"WEISS M K"/AU OR "WEISS M L"/AU OR "WEISS M M"/AU OR "WEISS M
M JR"/AU OR "WEISS M M SR"/AU OR "WEISS M N"/AU OR "WEISS M
O"/AU OR "WEISS M P"/AU OR "WEISS M R"/AU OR "WEISS M S"/AU OR
"WEISS M T"/AU OR "WEISS M TRACY"/AU OR "WEISS M W"/AU OR
"WEISS M Z"/AU)
L32 639 SEA ("WEISS MICHAEL"/AU OR "WEISS MICHAEL A"/AU OR "WEISS
MICHAEL AARON"/AU OR "WEISS MICHAEL D"/AU OR "WEISS MICHAEL
E"/AU OR "WEISS MICHAEL EDGAR"/AU OR "WEISS MICHAEL G"/AU OR
"WEISS MICHAEL H"/AU OR "WEISS MICHAEL J"/AU OR "WEISS MICHAEL
J SALOMON"/AU OR "WEISS MICHAEL JAY"/AU OR "WEISS MICHAEL
JOSEPH"/AU OR "WEISS MICHAEL L"/AU OR "WEISS MICHAEL S"/AU OR
"WEISS MICHAELA"/AU OR "WEISS MICHEAL A"/AU)
L33 40 SEA ("GEISS K"/AU OR "GEISS K R"/AU OR "GEISS KURT REINER"/AU)
L34 244 SEA ("JUNEJA L"/AU OR "JUNEJA L R"/AU OR "JUNEJA LECH RAJ"/AU
OR "JUNEJA LEK R"/AU OR "JUNEJA LEKA RAJ"/AU OR "JUNEJA

LEKH"/AU OR "JUNEJA LEKH R"/AU OR "JUNEJA LEKH RAI"/AU OR
 "JUNEJA LEKH RAJ"/AU OR "JUNEJA LEKH RAJA"/AU)
 L35 1519 SEA ("YAMAZAKI N"/AU OR "YAMAZAKI NAGAHIRO"/AU)
 L36 662 SEA ("OZEKI M"/AU OR "OZEKI MAKOTO"/AU)
 L37 9463 SEA (L31 OR L32 OR L33 OR L34 OR L35 OR L36)
 L39 839 SEA L19
 L41 41 SEA L37 AND L39
 L43 28 DUP REM L41 (13 DUPLICATES REMOVED)
 L45 26 SEA L43 NOT L30

=> d ibib L45 1-26

L45 ANSWER 1 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2005:574581 HCAPLUS
 TITLE: Effect of **theanine**, γ -
 glutamylethylamide, on bodyweight and fat accumulation
 in mice
 AUTHOR(S): Zheng, Guodong; Bamba, Kimio; Okubo, Tsutomu;
Juneja, Lekh Raj; Oguni, Itaro; Sayama,
 Kazutoshi
 CORPORATE SOURCE: United Graduate School of Agricultural Science, Gifu
 University, Gifu-shi, Japan
 SOURCE: Animal Science Journal (Tokyo, Japan) (2005), 76(2),
 153-157
 CODEN: ASCJFY; ISSN: 1344-3941
 PUBLISHER: Japanese Society of Animal Science
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2005:369129 HCAPLUS
 DOCUMENT NUMBER: 142:404299
 TITLE: Method of treating extreme physical or mental stress
 using L-**theanine** to obtain accelerated
 regeneration
 INVENTOR(S): **Geiss, Kurt-Reiner; Weiss, Michael**
; Yamazaki, Nagahiro; Juneja, Lekh
Raj; Ozeki, Makoto
 PATENT ASSIGNEE(S): Germany
 SOURCE: U.S. Pat. Appl. Publ., 6 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2005090512	A1	20050428	US 2003-695427	20031028
PRIORITY APPLN. INFO.:			US 2003-695427	20031028

L45 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:254108 HCAPLUS
 DOCUMENT NUMBER: 141:254294
 TITLE: Anti-obesity effects of three major components of
 green tea, catechins, caffeine and **theanine**,
 in mice

AUTHOR(S): Zheng, Guodong; Sayama, Kazutoshi; Okubo, Tsutomu;
Juneja, Lekh Raj; Oguni, Itaro
 CORPORATE SOURCE: Department of Applied Biological Chemistry, Faculty of
 Agriculture, Shizuoka University, Shizuoka, 422-8529,
 Japan
 SOURCE: In Vivo (2004), 18(1), 55-62
 CODEN: IVIVE4; ISSN: 0258-851X
 PUBLISHER: International Institute of Anticancer Research
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:162824 HCAPLUS
 DOCUMENT NUMBER: 140:162458
 TITLE: **Theanine** manufacture with *Pseudomonas*
citronellolis
 INVENTOR(S): Tachiki, Takashi; Okada, Yukitaka; **Ozeki,**
Makoto; Okubo, Tsutomu; **Juneja, Lekh Raj**
; Yamazaki, Nagahiro
 PATENT ASSIGNEE(S): Taiyokagaku Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 14 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004016798	A1	20040226	WO 2003-JP5077	20030422
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004065105	A2	20040304	JP 2002-229026	20020806
CA 2494854	AA	20040226	CA 2003-2494854	20030422
EP 1544306	A1	20050622	EP 2003-717681	20030422
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			JP 2002-229026	A 20020806
			WO 2003-JP5077	W 20030422
REFERENCE COUNT:	3	THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L45 ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:165035 HCAPLUS
 DOCUMENT NUMBER: 138:169209
 TITLE: **Theanine** for control of mood disorders
 INVENTOR(S): Koseki, Makoto; Okubo, Tsutomu; Juneja, Reka Raju;
Yamazaki, Nagahiro
 PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003063958	A2	20030305	JP 2001-253740	20010824
US 2004171624	A1	20040902	US 2004-790730	20040303
PRIORITY APPLN. INFO.:			JP 2001-253740	A 20010824

L45 ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:147925 HCAPLUS

DOCUMENT NUMBER: 138:147743

TITLE: **Theanine** as a remedy and health food for treatment of menstruation disorders

INVENTOR(S): Yokogoshi, Hidehiko; Umeda, Chinaru; Shinbo, Mari; Suzuki, Chie; Ueda, Tomoko; Koseki, Makoto; Yao, Haruo; Okubo, Tsutomu; **Juneja, Leka Raj**

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003055212	A2	20030226	JP 2001-242934	20010809
PRIORITY APPLN. INFO.:			JP 2001-242934	20010809

L45 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:955397 HCAPLUS

DOCUMENT NUMBER: 138:11435

TITLE: **Theanine** for treatment of attention-deficit hyperactivity disorder

INVENTOR(S): Ueda, Tomoko; Koseki, Makoto; Okubo, Tsutomu; **Juneja, Leka Raj**

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002363074	A2	20021218	JP 2001-171342	20010606
WO 2002100393	A1	20021219	WO 2001-JP7763	20010907
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 CA 2417837 AA 20030129 CA 2001-2417837 20010907
 EP 1393725 A1 20040303 EP 2001-963497 20010907
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 PRIORITY APPLN. INFO.: JP 2001-171342 A 20010606
 WO 2001-JP7763 W 20010907

L45 ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:868724 HCAPLUS
 DOCUMENT NUMBER: 137:333183
 TITLE: **Theanine** for improving mental concentration
 INVENTOR(S): **Ozeki, Makoto**; Ueda, Tomoko; Okubo, Tsutomu;
Juneja, Lekh Raj
 PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 63 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002089786	A1	20021114	WO 2001-JP7764	20010907
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2002322053	A2	20021108	JP 2001-126266	20010424
JP 2002370979	A2	20021224	JP 2001-176134	20010611
CA 2412789	AA	20021213	CA 2001-2412789	20010907
EP 1393726	A1	20040303	EP 2001-963498	20010907
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2005020627	A1	20050127	US 2003-311972	20030211
PRIORITY APPLN. INFO.:			JP 2001-126266	A 20010424
			JP 2001-176134	A 20010611
			WO 2001-JP7764	W 20010907
REFERENCE COUNT:	8	THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L45 ANSWER 9 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:832506 HCAPLUS
 DOCUMENT NUMBER: 137:320327
 TITLE: Method for measuring the effect of antistress agents
 using bicycle ergometry
 INVENTOR(S): **Geiss, Kurt-Reiner**; **Weiss, Michael**
 ; Falke, Wolfgang
 PATENT ASSIGNEE(S): Isme Privates Forschungsinstitut Fuer Sport, Medizin &
 Ernaehrung Gmbh, Germany
 SOURCE: Ger. Offen., 5 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10140653	A1	20021031	DE 2001-10140653	20010824
DE 10140653	C2	20030918		

PRIORITY APPLN. INFO.: DE 2001-10120178 A1 20010424
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:227143 HCAPLUS
DOCUMENT NUMBER: 137:231508
TITLE: Relaxation effect of **theanine** in green tea component
AUTHOR(S): **Ozeki, Makoto**
CORPORATE SOURCE: Department of NF Business, Taiyo Chemical Co., Ltd., Japan
SOURCE: Food Style 21 (2002), 6(3), 70-76
CODEN: FSTYFF
PUBLISHER: Shokuhin Kagaku Shinbunsha
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese

L45 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:89827 HCAPLUS
DOCUMENT NUMBER: 136:139854
TITLE: Compositions containing **theanine** for regulating desire for smoking
INVENTOR(S): Okubo, Tsutomu; **Ozeki, Makoto**; Inden, Takehiko; **Juneja, Lekh Raj**; Hisanabe, Masahiko; Okayama, Kenichi
PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan; Otsuka Chemical Co., Ltd.
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002007723	A1	20020131	WO 2001-JP6202	20010718
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2002097136	A2	20020402	JP 2001-34460	20010209
CA 2385415	AA	20020131	CA 2001-2385415	20010718
AU 2002024525	A5	20020205	AU 2002-24525	20010718
EP 1319401	A1	20030618	EP 2001-984301	20010718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

US 2003003130 A1 20030102 US 2002-88587 20020321
 PRIORITY APPLN. INFO.: JP 2000-220301 A 20000721
 JP 2001-34460 A 20010209
 WO 2001-JP6202 W 20010718
 REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2001:823312 HCAPLUS
 DOCUMENT NUMBER: 135:339255
 TITLE: **Theanine** as a drug and health food for
 improving blood circulation
 INVENTOR(S): Koseki, Makoto; Okubo, Tsutomu; Shu, Seiji; Ogasawara,
 Yutaka; **Juneja, Lekh Raj; Yamazaki,**
Nagahiro
 PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001316256	A2	20011113	JP 2000-131636	20000428
PRIORITY APPLN. INFO.:			JP 2000-131636	20000428

L45 ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2001:747601 HCAPLUS
 DOCUMENT NUMBER: 135:278057
 TITLE: Compositions for promoting sleep
 INVENTOR(S): **Ozeki, Makoto**; Yao, Haruo; Okubo, Tsutomu;
Juneja, Lekh Raj
 PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 18 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074352	A1	20011011	WO 2001-JP2916	20010404
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2404387	AA	20011011	CA 2001-2404387	20010404
EP 1277468	A1	20030122	EP 2001-921790	20010404
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002188025	A1	20021212	US 2001-980620	20011205
PRIORITY APPLN. INFO.:			JP 2000-102926	A 20000405

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2001:365026 HCAPLUS
 DOCUMENT NUMBER: 136:79019
 TITLE: Effects of green tea component on brain functions
 AUTHOR(S): Ozeki, Makoto
 CORPORATE SOURCE: NF Dvi., Taiyo Kagaku Co., Ltd., Japan
 SOURCE: Food Style 21 (2001), 5(5), 80-85
 CODEN: FSTYFF
 PUBLISHER: Shokuhin Kagaku Shinbunsha
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: Japanese

L45 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2001:139929 HCAPLUS
 DOCUMENT NUMBER: 135:32918
 TITLE: Characteristics and food uses of L-theanine
 AUTHOR(S): Okubo, Tsutomu; Juneja, Lekh Raj
 CORPORATE SOURCE: Taiyo Kagaku Co., Ltd., Japan
 SOURCE: Japan Fudo Saiensu (2001), 40(1), 33-36
 CODEN: JAFSAA; ISSN: 0368-1122
 PUBLISHER: Nippon Shokuhin Shuppan K.K.
 DOCUMENT TYPE: Journal
 LANGUAGE: Japanese

L45 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2000:637402 HCAPLUS
 DOCUMENT NUMBER: 134:365822
 TITLE: L-theanine-a unique amino acid of green tea and its relaxation effect in humans. [Erratum to document cited in CA132:165251]
 AUTHOR(S): Juneja, L. R.; Chu, D.-C.; Okubo, T.; Nagato, Y.; Yokogoshi, H.
 CORPORATE SOURCE: Nutritional Foods Division, Taiyo Kagaku Co., Ltd., Yokkaichi, Mie, 510-0844, Japan
 SOURCE: Trends in Food Science & Technology (2000), Volume Date 1999, 10(12), 425
 CODEN: TFTEEH; ISSN: 0924-2244
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English

L45 ANSWER 17 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2000:306134 HCAPLUS
 DOCUMENT NUMBER: 132:333493
 TITLE: A unique amino acid of green tea, L-theanine, and its relaxation effect in humans
 AUTHOR(S): Chu, Djong Chi; Okubo, Tsutomu; Ueda, Tomoko; Juneja, Lekh Raj
 CORPORATE SOURCE: Nutr. Foods Div., Taiyo Kagaku Co., Ltd., Yokkaichi, 510-0844, Japan
 SOURCE: Fragrance Journal (2000), 28(4), 74-80
 CODEN: FUJAD7; ISSN: 0288-9803
 PUBLISHER: Fureguransu Janaru Sha
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: Japanese

L45 ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1999:806421 HCAPLUS
 DOCUMENT NUMBER: 132:165251
 TITLE: L-**theanine** - a unique amino acid of green tea and its relaxation effect in humans
 AUTHOR(S): **Juneja, L. R.**; Chu, D.-C.; Okubo, T.; Nagato, Y.; Yokogoshi, H.
 CORPORATE SOURCE: Nutritional Foods Division, Taiyo Kagaku Co., Ltd., Yokkaichi, Mie, Japan
 SOURCE: Trends in Food Science & Technology (1999), 10(6-7), 199-204
 CODEN: TFTEEH; ISSN: 0924-2244
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English
 REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1999:549146 HCAPLUS
 DOCUMENT NUMBER: 131:149342
 TITLE: Composition comprising **theanine**
 INVENTOR(S): Ueda, Tomoko; Nagato, Yukiko; Tanaka, Yukiko; Okubo, Tsutomu; Kobayashi, Kanari; Aoi, Nobuyuki; Shu, Seiji; **Juneja, Lakh Raj**
 PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 36 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9942096	A1	19990826	WO 1999-JP784	19990223
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
JP 2001089365	A2	20010403	JP 1998-57470	19980223
JP 2001089364	A2	20010403	JP 1998-142119	19980508
JP 2000053568	A2	20000222	JP 1998-234968	19980806
JP 2000143508	A2	20000523	JP 1998-330207	19981105
CA 2320368	AA	19990826	CA 1999-2320368	19990223
AU 9925488	A1	19990906	AU 1999-25488	19990223
EP 1057483	A1	20001206	EP 1999-905269	19990223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000247878	A2	20000912	JP 1999-235538	19990823
US 6831103	B1	20041214	US 2000-655336	20000905
US 2001001307	A1	20010517	US 2001-757586	20010111
US 6589566	B2	20030708		
PRIORITY APPLN. INFO.:			JP 1998-57470	A 19980223
			JP 1998-142119	A 19980508
			JP 1998-234968	A 19980806

JP 1998-330207	A 19981105
WO 1999-JP784	W 19990223
US 1999-403486	A3 19991022
US 2000-655336	A3 20000905

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 20 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:98721 HCAPLUS
 DOCUMENT NUMBER: 128:140064
 TITLE: Effects of L-theanine on the release of
 α -brain waves in human volunteers
 AUTHOR(S): Kobayashi, Kanari; Nagato, Yukiko; Aoi, Nobuyuki;
 Juneja, Lekh Raj; Kim, Mujo; Yamamoto,
 Takehiko; Sugimoto, Sukeo
 CORPORATE SOURCE: Taiyo Kagaku Co., Ltd., Yokkaichi, 510, Japan
 SOURCE: Nippon Nogeikagaku Kaishi (1998), 72(2), 153-157
 CODEN: NNKKA; ISSN: 0002-1407
 PUBLISHER: Nippon Nogeikagaku
 DOCUMENT TYPE: Journal
 LANGUAGE: Japanese

L45 ANSWER 21 OF 26 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:622503 HCAPLUS
 DOCUMENT NUMBER: 127:275341
 TITLE: Theanine - its synthesis, isolation, and
 physiological activity
 AUTHOR(S): Chu, D. - C.; Kobayashi, K.; Juneja, L. R.;
 Yamamoto, T.
 CORPORATE SOURCE: International Division, Taiyo Kagaku Co., Ltd., Japan
 SOURCE: Chemistry and Applications of Green Tea (1997),
 129-135. Editor(s): Yamamoto, Takehiko. CRC: Boca
 Raton, Fla.
 CODEN: 65BJA7
 DOCUMENT TYPE: Conference; General Review
 LANGUAGE: English

L45 ANSWER 22 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
 STN

ACCESSION NUMBER: 2003:376681 BIOSIS
 DOCUMENT NUMBER: PREV200300376681
 TITLE: Composition comprising theanine.
 AUTHOR(S): Ueda, Tomoko [Inventor, Reprint Author]; Nagato, Yukiko
 [Inventor]; Tanaka, Yukiko [Inventor]; Okubo, Tsutomu
 [Inventor]; Kobayashi, Kanari [Inventor]; Aoi, Nobuyuki
 [Inventor]; Shu, Seiji [Inventor]; Juneja, Lekh Raj
 [Inventor]
 CORPORATE SOURCE: c/o Taiyo Kagaku Co., Ltd., 9-5, Akahorishinmachi,
 Yokkaichi-shi, Mie 510-0825, Japan
 PATENT INFORMATION: US 6589566 20030708
 SOURCE: Official Gazette of the United States Patent and Trademark
 Office Patents, (July 8 2003) Vol. 1272, No. 2.
<http://www.uspto.gov/web/menu/patdata.html>. e-file.
 ISSN: 0098-1133 (ISSN print).
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 ENTRY DATE: Entered STN: 13 Aug 2003
 Last Updated on STN: 13 Aug 2003

L45 ANSWER 23 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on

STN

ACCESSION NUMBER: 2001:575538 BIOSIS
 DOCUMENT NUMBER: PREV200100575538
 TITLE: Composition and method for suppressing behavior problems of
 pets.
 AUTHOR(S): Ishihara, Noriyuki [Inventor, Reprint author]; Sakanaka,
 Senji [Inventor]; Shu, Seiji [Inventor]; **Juneja, Lekh
 Raj** [Inventor]
 CORPORATE SOURCE: Yokkaichi, Japan
 ASSIGNEE: Taiyo Kagaku Co., Ltd., Mie-ken, Japan
 PATENT INFORMATION: US 6297280 20011002
 SOURCE: Official Gazette of the United States Patent and Trademark
 Office Patents, (Oct. 2, 2001) Vol. 1251, No. 1. e-file.
 CODEN: OGUPE7. ISSN: 0098-1133.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 ENTRY DATE: Entered STN: 12 Dec 2001
 Last Updated on STN: 25 Feb 2002

L45 ANSWER 24 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
 STN

ACCESSION NUMBER: 2001:533761 BIOSIS
 DOCUMENT NUMBER: PREV200100533761
 TITLE: Does L-**theanine** have an influence on the
 relaxation after severe physical exercise? Evaluation using
 electrosympathicography.
 AUTHOR(S): Herwegen, H. [Reprint author]; Reinsberger, C. [Reprint
 author]; **Geiss, K. R.** [Reprint author];
Juneja, L. R. [Reprint author]; Liesen, H. [Reprint
 author]; **Weiss, M.** [Reprint author]
 CORPORATE SOURCE: Institute of Sportsmedicine, University of Paderborn,
 Paderborn, Germany
 SOURCE: Amino Acids (Vienna), (2001) Vol. 21, No. 1, pp. 60. print.
 Meeting Info.: 7th International Congress on Amino Acids
 and Proteins. Vienna, Austria. August 06-10, 2001.
 ISSN: 0939-4451.
 DOCUMENT TYPE: Conference; (Meeting)
 Conference; Abstract; (Meeting Abstract)
 LANGUAGE: English
 ENTRY DATE: Entered STN: 14 Nov 2001
 Last Updated on STN: 23 Feb 2002

L45 ANSWER 25 OF 26 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2003-140684 [13] WPIDS
 DOC. NO. CPI: C2003-035865
 TITLE: Composition used for treating attention-deficit and
 hyperactivity disorder comprise **theanine**.
 B05
 DERWENT CLASS:
 INVENTOR(S): **JUNEJA, L R**; KUMAGAI, T; OKUBO, T; **OZEKI,
 M**; UEDA, T
 PATENT ASSIGNEE(S): (TAIC) TAIYO KAGAKU KK
 COUNTRY COUNT: 97
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002100393	A1	20021219	(200313)*	JA	20
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ					
NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK					

P Spivack 10/695,427

DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS KE KG KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
JP 2002363074 A 20021218 (200313) 6
KR 2003022366 A 20030315 (200350)
CN 1449283 A 20031015 (200404)
MX 2003001060 A1 20030501 (200415)
EP 1393725 A1 20040303 (200417) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI TR
AU 2001284470 A1 20021223 (200452)
AU 2001284470 B2 20040603 (200465)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002100393	A1	WO 2001-JP7763	20010907
JP 2002363074	A	JP 2001-171342	20010606
KR 2003022366	A	KR 2003-701719	20030206
CN 1449283	A	CN 2001-814820	20010907
MX 2003001060	A1	WO 2001-JP7763	20010907
		MX 2003-1060	20030204
EP 1393725	A1	EP 2001-963497	20010907
		WO 2001-JP7763	20010907
AU 2001284470	A1	AU 2001-284470	20010907
AU 2001284470	B2	AU 2001-284470	20010907

FILING DETAILS:

PATENT NO	KIND	PATENT NO
MX 2003001060	A1 Based on	WO 2002100393
EP 1393725	A1 Based on	WO 2002100393
AU 2001284470	A1 Based on	WO 2002100393
AU 2001284470	B2 Previous Publ. Based on	AU 2001284470 WO 2002100393

PRIORITY APPLN. INFO: JP 2001-171342 20010606

L45 ANSWER 26 OF 26 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-193140 [20] WPIDS
DOC. NO. CPI: C2001-058081
TITLE: Composition for suppressing behavioral problems in pets
comprises **theanine**.
DERWENT CLASS: B02 C02
INVENTOR(S): ISHIHARA, N; JUNEJA, L R; SAKANAKA, S; SHU, S
PATENT ASSIGNEE(S): (TAIC) TAIYO KAGAKU KK
COUNTRY COUNT: 28
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 1074252	A2	20010207	(200120)*	EN	12
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
CA 2313878	A1	20010119	(200120)	EN	
JP 2001031566	A	20010206	(200123)		9
US 6297280	B1	20011002	(200160)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1074252	A2	EP 2000-115601	20000719
CA 2313878	A1	CA 2000-2313878	20000714
JP 2001031566	A	JP 1999-204307	19990719
US 6297280	B1	US 2000-619713	20000719

PRIORITY APPLN. INFO: JP 1999-204307 19990719

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